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ABSTRACT

A fourteen-month project was undertaken to update, expand, publicize, and evaluate EUREKA, a career information system used for vocational counseling in California. As a result of this project, the following information was added to EUREKA's data base: twenty-one new schools; sixty-two agencies offering over 1,000 courses; a VISIT file for Contra Costa County; descriptions of employers in forty-four major industries; thiry-one apprenticeship programs; and forty new occupations. In the area of user services, training sessions were held at secondary and postsecondary institutions, and various products to aid users were developed such as a counselor's handbook (CE 022 142), audiovisual presentations, and a wall chart. In order to publicize the system, newsletters were distributed as well as a press kit, and demonstration-workshops were conducted. Both internal and third-part evaluations indicated that the project successfully met its objectives (an evaluation report is also published separately--CE 022 141). Further evidence of its positive value has been its adoption by California schools and agencies. In the future it is projected that EUREKA will continue to expand its information files and become a well-developed, self-sufficient statewide career information system. (The appendixes include samples of information files, a report on EUREKA's use by disadvantaged students, copies of the project's newsletters, a statistical data summary, and copies of evaluation forms.) (ELG)

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FINAL REPORT

EUREKA, THE CALIFORNIA CAREER INFORMATION SYSTEM

A Combined Vocational Guidance and Counseling Project
of the
Richmond Unified School District
and
Diablo Valley College
under
Subpart 3 of P.L. 94-482

Patrick Halligan, Project Director
Project No. 07-61796-3-8-817

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OE 0382 140

May 1, 1978 - June 30, 1979

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1. Executive Summary

TITLE

EUREKA, The California Career Information System

TOPIC

Vocational counseling for children, youth, and adults, leading to a greater understanding of educational and vocational options.

GOAL

The long range goal of this Project is the establishment of a statewide computer-delivered occupational and educational information access system. This system will provide current, accurate, and locally relevant information to Californians in the process of career exploration and decision-making so they can knowledgeably select careers and training opportunities appropriate to their needs.

OBJECTIVES

This Project has seven major objectives: 1) To provide accurate and current statewide vocational program information, including apprenticeship and Regional Occupation Program information. 2) To provide an employer file with information on employers' hiring requirements and working conditions. 3) To activate and expand the EUREKA files designed to introduce people making vocational choices to those who are already actively engaged in vocations of interest. 4) To study and encourage use of the System by the handicapped and the disadvantaged, to include System modifications either proposed or effected to increase the effectiveness of the System for the handicapped and disadvantaged. 5) To publicize the availability of this high quality vocational guidance and counseling tool which is fully transportable to local education agencies throughout the state. 6) To coordinate efforts in implementing and experimenting with EUREKA among the sites currently using the System in California and in other states with similar systems. 7) To prepare evaluation reports for the Career Education Task Force covering the results of this project and any others relating to EUREKA.

OUTCOMES

The project met and exceeded its ambitious objectives. Staff developed much new information for the EUREKA data base, produced an assortment of useful products, disseminated project information and distributed project products widely throughout California, and conducted a continuing evaluation of project activities.

EVALUATION

Both internal and third-party evaluations indicate that the objectives of the project have been met and further, that users are pleased with the results. Perhaps a still more critical evaluation is the one made by California schools and agencies when faced with the decision of whether to adopt EUREKA or not. In the aftermath of Proposition 13, when school budgets have been under the closest scrutiny, EUREKA has been "evaluated" all the more carefully for adoption, and it has, in fact, been adopted by forty secondary schools, thirty-two community colleges, nine four-year colleges, and ten agencies in California. That represents a most positive "evaluation."

CONCLUSION

Through the efforts of this project, EUREKA has come a long way toward becoming a well-developed statewide career information system, and there is every reason to believe that it will become self-sufficient in the future. Considering the project's success in meeting its objectives and the statewide implications of EUREKA, further development of the system should be considered. Specifically, the system should be developed to 1) increase occupations from 260 to 400, encompassing 1200 DOT titles, 2) localize occupational data to additional geographical areas, 3) expand the employer file to cover all of California, 4) include proprietary schools in the school file, and 5) produce a microcomputer version of EUREKA. When developed to this extent, EUREKA could be considered a completed career information system and a valuable resource for Californians.

2. Activities Conducted During the Project.

Project activities covered a wide range of pursuits during the fourteen-month life of this EUREKA Project. Basically, however, they can be categorized as follows: information development, user services, dissemination, and evaluation.

INFORMATION DEVELOPMENT

SCHOOL File--added 21 new schools

PROGRAM File--added 62 offering agencies and well over 1,000 courses

VISIT File--developed a VISIT File for Contra Costa County and added over 500 names

EMPLOYER File--added descriptions for each of the 44 major industrial categories in the San Francisco/Oakland area and descriptions of individual employers within those categories.

APPRENTICESHIP File--added information about 31 programs

OCCUPATIONAL File--added 40 new occupations; split 6 titles to provide separate descriptions; deleted 16 titles; changed 17 titles to reflect current labor market practices or to eliminate sex sterotyping; updated labor market sections of all descriptions.

USER SERVICES

Held trainings at all sites--9 four-year colleges and universities; 32 community colleges; 40 high schools; and 10 agencies.

Added new project products--developed counselor's implementation handbook, Inside EUREKA; composed information sheet entitled, "How to Implement EUREKA"; designed wall chart with instructions for using EUREKA; disseminated materials to implement VISIT file; compiled sheet of Occupational Data Sources; developed sample Computer Printout pamphlet; created two slide/tape shows: one describing how the system operates and other on the use of QUEST and the various files; printed five different 24" x 28" posters and the same set reduced to 8½" x 11"; distributed EUREKA suggestion cards; expanded and disseminated existing project products: CIS brochure, revised and reprinted User Handbook to reflect changes and additions...added 40 new occupations, changed format, implemented new QUEST as developed by the Oregon Career Information System, and added new private and out-of-state schools.

DISSEMINATION

Published 3 newsletters which were sent to over 800 users and interested non users; distributed a Press Kit to all user sites; conducted over 50 demonstration-workshops throughout the entire state.

EVALUATION

Contracted with third-party evaluator, Dr. Paul Burke, Professor of Education at St. Mary's College in Moraga; conducted internal evaluations as project progressed.

3. Project Objectives and Anticipated Outcomes Which Were Given Original Approval.

All together the EUREKA Project had seven objectives. Each one is listed below along with its anticipated outcomes.

-- OBJECTIVE ONE:

To provide accurate and current statewide vocational program information, including apprenticeship training and Regional Occupational Programs.

ANTICIPATED OUTCOMES:

Project staff will have purchased a computer data tape from the State Department of Education containing information necessary to localize the PROGRAM files to every area in Calfiornia where EUREKA is being used. This information on the non-captive vocational training and apprenticeship programs will have been analyzed and formatted for entry into the system.

Data entry personnel will have entered into the computer system all program information, and a computer tape containing this information will have been delivered to all computer sites.

---OBJECTIVE TWO:

To provide an employer file with information on employers' hiring requirements and working conditions.

ANTICIPATED OUTCOMES:

Project staff will have gathered, analyzed and formatted the data sufficient to build an EMPLOYER file program for the greater San Francisco Bay Area; much of this data will have been secured by agreement with Santa Clara County.

Data entry personnel will have entered into the computer system all San Francisco Bay Area EMPLOYER file data, and a computer tape containing this information will have been delivered to the computer sites involved.

---OBJECTIVE THREE:

To activate and expand the EUREKA files designed to introduce people making vocational choices to those who are already actively engaged in vocations of interest.

ANTICIPATED OUTCOMES:

Project staff will have assembled or helped to assemble the information to activate VISIT files in West Contra Costa County which have EUREKA users. The information will be gathered through involvement with the business community and with parents of students. These files will provide information leading to a personal contact between the EUREKA user and a person who is actively engaged in a particular occupation, thereby giving the user the opportunity for personal discussion with someone in the occupation and for observation of the work site.

Technical assistance will have been provided to the EUREKA computer center staffs in Sacramento, Fresno, Los Angeles, and San Diego to aid in implementing the VISIT file in those areas.

Data entry personnel will have entered into the computer system all VISIT file data assembled by Project staff, as well as VISIT file data assembled by other EUREKA users, and a computer tape will have been delivered to the local computer sites involved.

Project staff will have reviewed and updated the VISIT file on a continuous basis.

---OBJECTIVE FOUR:

To study and encourage use of the System by women, the handicapped and the disadvantaged, to include System modifications, either proposed or effected, to increase the effectiveness of the System for these users.

ANTICIPATED OUTCOMES:

The EUREKA program will have been made available to handicapped users at all of the EUREKA computer sites throughout California. A detailed study will have been completed based on evaluation reports, interviews with the handicapped enabler personnel on the campuses which have such personnel, and also interviews with the department of rehabilitation counselors, at least at the community college campuses in Contra Costa County. An evaluation report concerning use of the System by disadvantaged users will also have been completed.

Outreach efforts conducted by many schools, colleges, and agencies will have been assisted in using the EUREKA program by means of a portable computer terminal which can be easily carried by Outreach counselors.

All EUREKA data files will have been reviewed to eliminate sexist terms and sex stereotyping from the System.

---OBJECTIVE FIVE:

To publicize the availability of this high quality vocational guidance and counseling tool which is fully transportable to local education agencies throughout the state.

ANTICIPATED OUTCOMES:

Project staff will have produced audio-visuals that can be used anywhere in California. One will describe how the System operates; the other will train facilitators to use the System.

At least twenty-four demonstration workshops will have been conducted at appropriate sites throughout California. In addition, the EUREKA program will have been demonstrated at as many appropriate professional conferences as possible. To provide detailed information concerning the availability of the EUREKA program, members of the EUREKA user services staff will have visited various user sites throughout California to explain and demonstrate the program. The public media will also be used in this publicity effort.

---OBJECTIVE SIX:

To coordinate efforts in implementing and experimenting with EUREKA among the sites currently using the System in California and disseminating these findings to those in other states operating similar systems.

ANTICIPATED OUTCOMES:

Training sessions will be conducted at all of the individual sites that are involved in using the EUREKA Program.

A counselor's implementation handbook will have been published and in the hands of the staff at the individual EUREKA sites.

Since EUREKA has involved a number of California schools from its inception, has received some VEA Part D funding, and has been receiving some California Postsecondary Education Commission funding, the following procedures and activities will have been integrated with this project's activities:

1. A survey of educational computer sites throughout California.
2. Conversion of Oregon information to California information on the presently available data files.
3. Publication of User Handbook.

4. Training of vocational counselors and school facilitators at the EUREKA sites.
5. Participation in the National Association of Career Information Systems.
6. Conducting demonstration workshops.
7. Feasibility study of microcomputer applications.
8. Expansion of the SCHOOLS file.

Computer programming will have been streamlined, and new operating programs will have become available for EUREKA computer sites throughout California.

---OBJECTIVE SEVEN:

To prepare evaluation reports for the Career Education Task Force covering the results of this project and any others relating to EUREKA.

ANTICIPATED OUTCOMES:

Evaluation studies will have been completed and forwarded to the Career Education Task Force.

A third party evaluator report will have been completed.

4. Actual Outcomes and Their Measurements

The actual project outcomes and their measurements are given here arranged according to the sequence of the original project objectives.

---OBJECTIVE ONE:

To provide accurate and current statewide vocational program information, including apprenticeship training and Regional Occupational Programs.

ACTUAL OUTCOME:

As vocational education could be broadly construed to range from secondary training to post-graduate work at the university level, staff decided to focus on an area of non-captive vocational education which would (1) not be already offered elsewhere in our system, and would (2) serve as a distinctly separate resource for the greatest number of EUREKA users.

Project staff contacted the State Department of Education for a computer tape containing vocational program information of this type and learned that there was none available with useful data. Staff then contacted the State Department's Vocational Education Coastal Regional Office to determine what statewide listing of ROC/P courses existed. It was discovered that there was no such list. Instead, courses were shown by offering agency on the VE-78 reporting document. Staff then contacted the Vocational Education Field Operations office in Sacramento to ascertain if a comprehensive listing were available through them. None was; however, arrangements were made for EUREKA staff to duplicate VE-78's for each of the sixty-two agencies in the state.

Each ROC/P course which had been approved by the State Department was classified, entered into the system, and made accessible by program.

In addition to this ROC/P data, specific information on requirements and content of apprenticeship programs for thirty occupations (see following list) in which apprenticeship training is a significant entry route was gathered and included in appropriate PREPARATION files. Names and addresses of places to apply for apprenticeships are included in localized files. (See Appendix A.)

3112 Automobile Mechanics

3114 Truck and Heavy Equipment Mechanics

3142 Millwrights

3146 Heat and Cooling System Mechanics

3428 Stationary Engineers

4242 Painters
4244 Plasterers and Drywall Installers
4246 Cement Masons
4248 Glaziers
4254 Carpenters
4264 Bricklayers
4274 Plumbers
4276 Floor Covering Installers
4278 Roofers
4326 Meatcutters
4586 Cabinetmakers
4766 Printing Production Occupations
5422 Metal Working Patternmakers
5424 Molders
5462 Tool and Die Makers
5464 Machinist
5472 Ironworkers
5479 Ornamental Iron Workers
5483 Boilermakers
5484 Sheetmetal Workers
5485 Shipfitters
5486 Body and Fender Repairers
5488 Blacksmiths and Forge Shopworkers
5626 Electricians
7824 Chefs and Dinner Cooks
8184 Barbers

---OBJECTIVE TWO:

To provide an employer file with information on employers' hiring requirements and working conditions.

ACTUAL OUTCOME:

At first it was envisioned that profiles of specific employers would be developed and included in the files. Information gathered from employers in Contra Costa County was of varying quality, and it was decided to develop general descriptions for each of forty-four major industrial categories found in the San Francisco-Oakland area. These descriptions also contain a list of all occupations with significant employment opportunities in that industry. Following the industry descriptions is a

list of major employers in that industry. Large employers who have provided profile information are referenced on the employer list. Information on these employers is included in another section of the file. There are also files for each occupation which provide a cross-reference to the industry files.

Principal problems with the development of the computer file was the lack of computer space. The decision to concentrate on industry descriptions rather than specific employer profiles was that many schools which have the smaller mini-computers such as HP 2000's did not have the capacity for larger files. Another problem was that employer directories, ordered from the Santa Clara County Center for Educational Planning did not arrive until mid-June and were not in the requested format, requiring extensive reformatting.

Employer file data is now available to users throughout the San Francisco-Oakland area and on a test basis in the Sacramento and Los Angeles areas. (See Appendix B). Training in the use of these files is being given.

MEASUREMENT:

Usefulness of the employer file is being evaluated through the STATPG program. This program keeps tract of which files were accessed and how often. Usefulness of the files is also being evaluated with a form given to a sample of users.

A technical report on the Employer file has been prepared and has been circulated among users, federal and state agencies, and career information systems in other states. It appears as Appendix C.

---OBJECTIVE THREE:

To activate and expand the EUREKA files designed to intruduce people making vocational choices to those who are already actively engaged in vocations of interest.

ACTUAL OUTCOME:

Names of persons who would be willing to talk to students about occupations were compliled. The gathering of these names was performed under the direction of project staff, but it involved a great deal of volunteer effort by service organizations and work by local school and agency staff.

A comprehensive file for East and West Contra Costa County was developed, entered on the computer, and made available to all area users. In the central Los Angeles area, names were gathered, but they were not entered into computer files as planned. After evaluation user comments and needs regarding the VISIT file, staff concluded that maintaining the file in computerized form would neither be cost effective nor would it serve those users adequately who felt they had preprietary rights over names they developed themselves. In consequence, each EUREKA site in the Los Angeles area is maintaining separate user files in hard-copy form keyed to EUREKA's occupations by the four-digit occupational codes.

Technical assistance on the development and maintenance of a VISIT file was provided to EUREKA users in Sacramento, San Francisco, Santa Clara County, Fresno, and San Diego.

MEASUREMENT:

Samples of the VISIT file computer printouts are included as Appendix D and a sample of the pamphlet distributed to prospective VISIT file enrollees is included as Appendix E.

A handbook on how to solicit and format VISIT file data has been developed and given wide circulation. Four copies of this handbook have been included with other bulkier materials.

---OBJECTIVE FOUR:

To study and encourage use of the System by women, the handicapped and the disadvantaged, to include System modifications, either proposed or effected, to increase the effectiveness of the System for these users.

ACTUAL OUTCOME:

EUREKA was made available to handicapped users at all of the EUREKA sites throughout California, including the handicapped students' project at Moorpark College, where EUREKA is used with handicapped students exclusively.

Our study of the occupational information needs of the handicapped (disabled) suggests that information is most useful when it is most objective, that, when it is structured in terms of what the job requires rather than what employers want. Our entire effort has been to restructure the data base in this way. The data in this study was collected from professionals, such as rehabilitation counselors, in a variety of settings.

Disabilities under scrutiny were physical, mental, emotional, and combinations of these. A list was compiled of types of impairments with which counselors most frequently work. Informational needs were established on working conditions, physical demands, temperment/emotional adjustment factors, etc. Occupational descriptions in the system have and will continue to reflect this additional information.

Another study of special user needs consisted of in-depth interviews which were conducted at seven high school and community college user sites to determine the extent of use by the disadvantaged, their interaction with the system, and their special needs. Academic, cultural, economic and social difficulties were examined and assessed. The interviewees held a variety of staff positions but all helped students in the use of EUREKA. Depending upon the particular institution, responses to questions at times differed. However, a commonality of reaction did emerge and recommendations of ways to improve the system for the disadvantaged are presented in the report.

Many EUREKA user sites used EUREKA to focus their Outreach counseling efforts. Community colleges counselors took portable computer terminals to feeder high schools and helped high school seniors explore the occupational and educational options open to them. Seventh-Step Foundation counselors in Los Angeles took their portable terminal into prisons to help in the counseling of offenders who were curious about their options on the outside.

To eliminate sexist terms and sex stereotyping from EUREKA, staff reviewed all occupational descriptions, and terms such as "journeyman," "craftsman," and "bus boys" were replaced with non-sexist terms from the latest U.S. Department of Labor publications.

MEASUREMENT:

A copy of "Labor Market Information Needs for Career Counseling of the Disabled" is attached as Appendix F.

A copy of the "Report on the Use of EUREKA by Disadvantaged Students" is attached as Appendix G.

Field reports from Outreach counselors at Diablo Valley College and the Seventh-Step Foundation confirm use of the system in Outreach situations.

Diablo Valley College Outreach efforts consisted of using EUREKA over a two-week period at every one of its feeder high schools. At least 900 students participated. The Seventh-Step Foundation has incorporated EUREKA into its regular Outreach efforts and uses the portable terminal to assist in counseling inmates on a regular basis. Both of these uses were confirmed by staff.

Elimination of sexist terms and sex stereotyping was confirmed by both staff and user observations.

---OBJECTIVE FIVE:

To publicize the availability of this high quality vocational guidance and counseling tool which is fully transportable to local education agencies throughout the state.

ACTUAL OUTCOME:

Project staff, together with a professional team of graphics consultants, produced two EUREKA slide-tape shows. One describes how the system works and is used for demonstrations; the other outlines the step-by-step process for using the system and is used in training sessions both with career center staff and with student users.

The availability of EUREKA was publicized widely throughout California by project staff who put on demonstrations and workshops and exhibited at conferences. Project staff developed a press kit which was distributed to all user sites so they, too, could gain media exposure for EUREKA. Project staff wrote and published three issues of a newsletter called PROSPECTS and distributed approximately nine-hundred copies to local educational agencies, users, state staff, federal agencies, and other Calfornians who might be interested in guidance and counseling.

MEASUREMENT:

Both slide-tape shows are available on loan to anyone. Because of the expense involved, duplicate copies are not available to include with this report. The format of the slide-tape show used for training is being changed to filmstrip-cassette so it can be duplicated cheaply and distributed readily to every user site in the fall.

A copy of the actual press kit is attached as Appendix H , and copies of the last two issues of PROSPECTS are attached as Appendicies I and J.

Evidence of workshops, demonstrations, and conference participation is included in Section Six of this report.

---OBJECTIVE SIX:

To coordinate efforts in implementing and experimenting with EUREKA among the sites currently using the System in California and disseminating these findings to those in other states operating similar systems.

ACTUAL OUTCOME:

All EUREKA materials have been shared with those in other states operating similar systems.

Training sessions were conducted at all of the individual sites that are involved with EUREKA, including those which had committed themselves to it on a long-term basis and those which had chosen to try it on a two-month trial basis.

Project staff wrote and published a 108-page counselor's implementation handbook which they titled "Inside EUREKA." Each user site received at least one copy.

The eight procedures and activities mentioned in Section Three under Objective Six were integrated with the activities of this project.

Two new computer versions of EUREKA, one for the Burroughs and the other for the PDP-11, became available during the time period covered by this project, and the data entry program for the HP 2000F was streamlined.

Project staff met with the EUREKA Board of Directors three times during the year and met with the entire EUREKA Consortium once.

As mentioned under Objective Five's actual outcome, PROSPECTS, the user newsletter was published three times during the year.

MEASUREMENT:

Portions of the above outcomes can only be measured by staff observation, especially sharing of EUREKA materials with other states, conducting training sessions, integrating the eight procedures and activities mentioned for this objective in Secion Three, and making new computer versions available.

The counselor's implementation handbook is included with this report as a project product.

References to the EUREKA Board and Consortium meetings in the user newsletter indicates that these meetings were held.

---OBJECTIVE SEVEN:

To prepare evaluation reports for the Career Education Task Force covering the results of this project and any others relating to EUREKA.

ACTUAL OUTCOME:

Three quarterly reports covering project activities have been submitted so far, one of which included a third-party evaluation report. This final report is the last of the reports scheduled for completion under this objective.

MEASUREMENT:

The four reports referred to above have been or are being submitted to the EUREKA project monitor for distribution and hence constitute fulfillment of this objective.

5. Differences Between Anticipated and Actual Outcomes and the Reasons for the Differences.

---OBJECTIVE ONE:

To provide accurate and current statewide vocational program information, including aprenticeship training and Regional Occupational Programs.

DIFFERENCES:

After solving the initial problem of establishing an information source, there was no disparity between expectation and actual outcome of vocational program data inclusion. Classification and entry progressed as anticipated. However, EUREKA staff look forward to the forthcoming course bank printout which will simplify logistics.

---OBJECTIVE TWO:

To provide an employer file with information on employers' hiring requirements and working conditions.

DIFFERENCES:

As noted in "actual outcomes" there was no difference between anticipated and actual outcomes for this objective.

---OBJECTIVE THREE:

To activate and expand the EUREKA files designed to introduce people making vocational choices to those who are already actively engaged in vocations of interest.

DIFFERENCES:

The differences between anticipated outcomes and actual outcomes for this objective were confirmed entirely to area differences. Project staff doubled VISIT file coverage in Contra Costa County from the anticipated outcomes which stipulated that only the West Contra Costa County area would actually have a VISIT file. In actuality, both the East and the West parts of the county were covered. Staff made this change to compensate for problems in developing files elsewhere and to serve the many existing EUREKA users in the East Contra Costa County area.

The other area specified as one where a VISIT file would be developed was Central Los Angeles. After soliciting assistance from Los Angeles area EUREKA users, the VISIT file coordinator determined that those sites which had developed their own lists already were guarding them jealously and would not permit them to be computerized and made available to all

EUREKA users in the area. In light of this discovery, EUREKA staff chose to assist the Los Angeles sites in coordinating their existing lists with EUREKA occupations and in augmenting their lists with new names related specifically to EUREKA occupations.

---OBJECTIVE FOUR:

To study and encourage use of the System by women, the handicapped and the disadvantaged, to include System modifications, either proposed or effected, to increase the effectiveness of the System for these users.

DIFFERENCES:

As noted in "actual outcomes," there was no difference between anticipated and actual outcomes for this objective.

---OBJECTIVE FIVE:

To publicize the availability of this high quality vocational guidance and counseling tool which is fully transportable to local education agencies throughout the state.

DIFFERENCES:

As noted in "actual outcomes," the anticipated outcomes for this objective were exceeded by the actual outcomes.

---OBJECTIVE SIX:

To coordinate efforts in implementing and experimenting with EUREKA among the sites currently using the System in California and disseminating these findings to those in other states operating similar systems.

DIFFERENCES:

As noted in "actual outcomes" there was no difference between anticipated and actual outcomes for this objective.

---OBJECTIVE SEVEN:

To prepare evaluation reports for the Career Education Task Force covering the results of this project and any others relating to EUREKA.

DIFFERENCES: With the submission of this final report, Objective Seven has been met, and there is no difference between its anticipated and actual objectives.

6. Dissemination of Project Products and Services.

The following project products were distributed during the period May 1, 1978, through June 30, 1979:

* User Handbook
* Counselor's implementation handbook, Inside EUREKA

Three newsletters, Prospects

CIS brochure

Information sheet entitled, "How to Implement EUREKA"

* Implementating the VISIT File handbook
* Sample computer printouts
* Occupational Data Sources

Five different 24" x 28" posters and the same set reduced to 8½" x 11"*

* Wall chart showing instructions for using EUREKA

Two slide/tape shows, one describing how the System operates and another on the use of QUEST and the information files

EUREKA suggestion cards

Additions and corrections card

Services provided during the report period include the following kind and number:

Demonstration/workshops--These workshops, numbering over fifty, were conducted at a variety of sites including high schools, colleges and universities, and counseling services. Use was made of a portable terminal and selected products such as the slide-tape show and printed materials.

Following is a sample of the types of institutions and geographic locations:

High schools in Los Angeles, Simi Valley, San Francisco, Marin County, Oakland, Contra Costa County, San Mateo County, Claremont, Pomona, Riverside and Monterey Peninsula.

Community colleges, California state colleges, University of California campuses, and private colleges in Fresno, San Diego, Sacramento, Contra Costa County, Santa Clara, San Mateo, San Francisco, Alameda County, Marin County, Los Angeles County, Chico, San Jose, Clovis, Indian Valley, Marysville, and Modesto.

*Four sets of these materials have been submitted with this report.

Counseling services such as Jewish Vocational Service in Los Angeles and San Francisco, Open Road Project in Santa Barbara, 7th Step Foundation, a program for prison inmates and ex-offenders in San Leandro, Project ACCESS in Ukiah, Comprehensive Rehabilitation Services in Arcadia and San Jose.

Conferences--EUREKA staff participated in numerous conferences/conventions: the American College Personnel Association Convention, the California Personnel and Guidance Association Convention, The American Personnel and Guidance Association Convention, the Association of Computer-Based Systems for Career Information Convention, the Conference on Computerized Counseling, The California Advocates for Re-Entry Education Convention, the Community College Counselors Conference, the California Cooperative Education Association Conference and the Industry Education Conference.

Training Workshops--These workshops were held at user sites to train counselors, teachers, student aides, administrators, and career center staff in the use of EUREKA, with special emphasis on the use of QUEST.

These sites included Moorpark College, Sierra College, U.C. Irvine, U.C. Berekley, College of Alameda, Liberty Union High School (Brentwood), College of Marin, Mt. Diablo School District Career Trailer Program, Mills High School (San Mateo), Berkeley High School, Gunn High School (Palo Alto), De Anza College, Cubberly High School (Palo Alto), Diablo Valley College, all the high schools in the Richmond Unified School District, Fresno City College, Mercy High School (San Francisco), University of San Francisco, San Diego County Office of Education, Imperial Valley College, and Sacramento County Office of Education.

Public Relations--In this area, a press kit was developed which was made available to all our user sites.

A number of newspaper articles on EUREKA were published. Two of these are attached as Appendix K.

Over 40 presentations were made to community service clubs in an effort to recruit VISIT File resource persons. These also served to publicize

the availability of EUREKA in the various communities of Contra Costa County. Some of these organizations and their locations are: The Rotary Clubs of Pinole, Richmond, San Pablo, El Sobrante, El Cerrito, Pleasant Hill and Pittsburg; The Soroptomists Clubs of El Cerrito, Richmond, and Pleasant Hill; and the Pinole Junior Chamber of Commerce.

7. Internal Evaluation Activities

Obviously in a project as ambitious as this, internal evaluation had to substitute for lengthy evaluation studies. Numerous decisions had to be made in minutes, hours, days, or weeks which, under other circumstances, would have taken months or years.

The framework for this internal evaluation was sound enough, and it would seem from the wide acceptance of the results of this project that the results were quite reasonable. The framework, from top to bottom, consisted of the following: the consortium meeting, the board meetings, the executive meetings, the staff meetings, the staff section meetings, and the individual staff decisions. Only the latter four actually involved this project. The first two involve EUREKA as a whole.

Internal evaluation activities and results have already been detailed regarding the formatting of ROC/P information and the inclusion of a computerized VISIT file for the central Los Angeles area.

Other internal evaluation activities and results which might be of interest to those reading this report are related to apprenticeship information, employer information formatting, and sex bias elimination.

Apprenticeship...Information development staff examined the available apprenticeship data base to ascertain which information would be most useful to EUREKA users. Detailed requirements were included on the existing apprenticeships registered with the state (and a few with the federal government). Those requirements and tips introduce a list of the actual offices where further apprenticeship information may be obtained on a specific occupation.

Employer information formatting...To save computer storage space and present a manageable number of employers for user examination, the executive staff elected to develop general industrial descriptions which were broader and more comprehensive than individual employer profiles. Both the general industrial descriptions and individual employer profiles have been included in the files, however, to test user reactions.

Sex Bias...Staff reviewed the Labor Department publication on elimination of sex bias in occupational titles. During lively staff debates, they considered various alternatives, such as listing non-traditional occupations for women. This was rejected because it was not in keeping with basic occupational information presented from a neutral standpoint.

Since QUEST makes no reference to sex in any of its questions, and the examples used are not sex-related, users assessing themselves get lists without any reference to sex.

One of the advantages inherent in the EUREKA project was that the results of project decision-making were subject to scrutiny by hundreds of users every day as they sat at computer terminals using EUREKA. New computer tapes reflecting decisions made through internal evaluation were distributed every four months, and users were encouraged to submit their reactions to changes. User services staff visited sites and solicited written and verbal comments on specific aspects of the "end product". Even the back cover of the User Handbook asked users for feedback, giving the project's addresses and suggesting that project office be contacted directly with any comments or suggestions.

Statistical data was collected automatically by a EUREKA subprogram which is currently operational only on a few of the computers used for EUREKA. The data collected represents usage at 4 community colleges and 2 high schools. (See Appendix L.) In addition, scanable evaluation forms were sent to all user sites (see Appendix M) and the results have been summarized. (see Appendix N.)

The average time needed by each client varied greatly depending on the site. This reflects widely differing styles of using the computer. While an unassisted high school student may take up to an hour to interact with QUEST and explore all of the information files, clients who are further along in the decision-making process or who are working closely with counselors may find 15 minutes sufficient. The composite average time spent per user was 28 minutes.

The most frequently used component was the occupational descriptions. (DESC) (used 1275 times) Users requested information on preparation (PREP) for 3 out of 4 occupations explored. Programs of training or study (PROG) (used 513 times) were accessed less than half as often as occupations, and school information (SCH) was requested half again as often (used 243 times). QUEST was used by 2 out of 3 users. Half of the users indicated on the self-report form that they did not change their QUEST list. This would indicate that those who did use the WHY NOT feature, asked about an average of 3 occupations and changed an average of 2 QUEST answers to get a better list.

The most frequently accessed occupations, programs, and schools varied widely. This reflects the differences in the communities using EUREKA and indicates that the breadth of the files causes them to be useful in a wide variety of settings.

From the users' self-reported information a profile of the typical user can be compiled. Most clients learned about EUREKA from a teacher. The majority were of high school age and had never held a job. Almost half of the users wanted occupational information and an equal number indicated that occupational information was the most valuable result of using the system. One-fourth of the users wanted

EUREKA to help them in choosing an occupation and one third reported assistance in this area as the most important result.

Three-fourths of the users indicated that this was their first time to use EUREKA and they spent 5 to 15 minutes preparing to use it. The same number found the instructions in the handbook clear, with almost as high a rating given to the computer responses. The overwhelming majority reported that EUREKA was easy to use, with machine failures reported as the major problem.

QUEST received quite high ratings. The final QUEST list was rated 2.8 on a 4 point scale (B-) and users reported an average of 4.7 interesting occupations on their lists which they had not previously considered. Since one goal of QUEST is to provide a reality check for fantasy occupations, it is not expected to be well liked by users. But its other purpose is to suggest new occupations to consider, and this goal was met quite well.

Ratings of each of the informational components were quite high. In all areas the ratings averaged between "Excellent" and "Good". Occupational descriptions and lists of schools where a program is offered were rated especially high. Bibliography (BIB) received the lowest rating, 2.7 on a 4 point scale (B-).

Keeping in mind the success of QUEST in suggesting new occupations of interest to users and the overall high rating given to the information, it is not surprising that over half of the users reported that their plans had changed as a result of using EUREKA.

When asked what was missing from EUREKA that the users needed, the only requests were for two new occupations. Combining this with the overall high ratings given to the information, it is reasonable to conclude that mose users found the information relevant, easy to access, and very useful.

8. Modification of the Project to Make It More Successful.

If a project's success is to be measured by whether or not it has accomplished it objectives, then as indicated repeatedly in this final report, the EUREKA Project has indeed been successful. Its objectives have even been exceeded on many counts through the initiative, resourcefulness, expertise, dedication, and inventiveness of a professional staff.

Staff believe that no modifications in the project itself could have made it more successful.

---SKILLS: ABILITY TO DO FORM AND SCAFFOLD BUILDING, ROUGH FRAMING, FINISHING AND PRE-FAB CONCRETE INSTALLING; KNOWLEDGE OF USE AND CARE OF TOOLS, EQUIPMENT AND MATERIALS OF THE TRADE; KNOWLEDGE OF BLUEPRINT READING, SAFETY PRACTICES, LAYOUT TECHNIQUES AND BUILDING REGULATIONS.

---PREPARATION: ABOUT HALF OF THE EMPLOYERS REQUIRE APPRENTICESHIP TRAINING FOR CARPENTERS; HOWEVER, SOME GAIN SKILLS THROUGH INFORMAL ON-THE-JOB TRAINING OR BY TAKING CORRESPONDENCE OR VOCATIONAL COURSES. COURSEWORK IN CONSTRUCTION TECHNOLOGY IS OFFERED AT SOME COMMUNITY COLLEGES.

A 4-YEAR APPRENTICESHIP PROGRAM PROVIDES A BROAD RANGE OF WORK EXPERIENCE WHILE ON-THE-JOB TRAINING IS OFTEN MORE LIMITED IN SCOPE. 2-YEAR APPRENTICESHIP TRAINING IS AVAILABLE FOR SPECIALTIES SUCH AS SHIPWRIGHTS, PILEBUCKS AND ACCOUSTICAL CARPENTERS.

RELATED EDUCATIONAL PROGRAM: APPRENTICESHIP TRAINING (PROG 631), CONSTRUCTION INDUSTRY PROGRAMS (288).

---TIPS: APPRENTICESHIP APPLICANTS MUST HAVE A HIGH SCHOOL DEGREE OR G.E.D., AND PASS A NATIONAL QUALIFYING TEST. EXTRA CREDIT IS GIVEN IN THE APPRENTICESHIP INTERVIEW FOR MATH, SCIENCE AND SHOP COURSES AND PREVIOUS RELATED WORK. MOST CARPENTERS ARE JOURNEY WORKERS THROUGHOUT THEIR WORKING CAREER, BUT SOME (AFTER SEVERAL YEARS OF EXPERIENCE) CHOOSE EMPLOYMENT OPTIONS THAT INCLUDE CARPENTRY SUPERVISOR, GENERAL CONSTRUCTION SUPERVISOR, CONSTRUCTION SUPERVISOR OR SELF-EMPLOYMENT.

FOR INFORMATION ON APPRENTICESHIPS IN YOUR LOCALITY, CONTACT ONE OF THE FOLLOWING OFFICES:

CARPENTERS 46 N. CALIF. COUNTIES
JOINT APPRENTICESHIP & TRAINING
COMMITTEE
26569 CORPORATE AVE.
HAYWARD, CA. 94545

CARPENTERS JAC
1155 TRITON DR. SUITE D
FOSTER CITY, CA. 94404

OFFICE OF JOINT APPRENTICESHIP
COMMITTEE
953 23RD ST.
SAN DIEGO, CA. 92102

CENTRAL CITY OCC. CENTER
1646 S. OLIVE ST.
LOS ANGELES, CA. 90020

CARPENTERS 46 N. CALIF. COUNTIES
JATC
4801 E. FREEMONT ST.
STOCKTON, CA. 95205

CARPENTERS LOCAL UNION #1235
602 10TH ST.
MODESTO, CA. 95350

SACRAMENTO CARPENTERS JATC
3333 WATT AVE. RM. 109
SACRAMENTO, CA. 95821

CARPENTERS LOCAL UNION #2043
210 W. 6TH ST.
CHICO, CA. 95926

CARPENTERS 46 N. CALIF. COUNTIES
5622 E. WESTOVER AVE.
FRESNO OAKS BLDG. SUITE 139-140
FRESNO, CA. 93727

CARPENTER'S UNION OFFICE
2000 16TH ST.
SAN FRANCISCO, CA. 94103

CARPENTER'S UNION #1040
LABOR TEMPLE
9TH AND E ST.
EUREKA, CA. 95501

OFFICE OF JATC
1365 VANDER WAY
SAN JOSE, CA. 95112

EMPLY29
2900 PETROLEUM REFINERIES

PETROLEUM REFINERIES

THERE ARE 5 PETROLEUM REFINING ESTABLISHMENT IN THE BAY AREA WITH HEADQUARTERS AREA EMPLOYING AN ESTIMATED 5,000 WORKERS. MOST OF THE JOBS ARE FOUND AT FOUR LARGE REFINERIES LOCATED ALONG THE SHORELINE. THEY ARE IN CONTRA COSTA COUNTY, EACH OF WHICH EMPLOY MORE THAN 2000 WORKERS. THIS IS NORMALLY A STABLE INDUSTRY WITH ONLY SLIGHT CHANGES IN EMPLOYMENT LEVELS FROM MONTH TO MONTH OR YEAR TO YEAR. SOME JOBS ARE ELIMINATED EACH YEAR BY AUTOMATION, BUT SOME NEW JOBS MAY DEVELOPE DUE TO THE INFLUX OF OIL FROM ALASKA. A SMALL NUMBER OF OPENINGS OCCUR EACH YEAR PRIMARILY TO REPLACE WORKERS WHO LEAVE EMPLOYMENT. MOST WORKERS ARE HIRED INTO ENTRY POSITIONS AND MAY EXPECT TO PROGRESS TO HIGHER POSITIONS AS THEY OPEN UP, AND AS THE WORKER ACQUIRES SKILLS ON THE JOB. FRINGE BENEFITS ARE VERY GOOD INCLUDING HEALTH INSURANCE, LIFE INSURANCE AND RETIREMENT PLANS. WORKING CONDITIONS ARE HAZARDOUS FOR OPERATIONS JOBS; SAFETY GEAR MUST BE WORN, AND ROTATING SHIFT WORK IS OFTEN REQUIRED.
ENTRY JOBS ARE:

1186 PERSONNEL MANAGERS
1414 CLERK TYPISTS
1514 ACCOUNTANTS
2418 CHEMICAL ENGINEERS
2422 ELECTRICAL ENGINEERS
2424 INDUSTRIAL ENGINEERS
2428 MECHANICAL ENGINEERS
2656 LABORATORY TESTERS
3186 INSTRUMENT REPAIRERS
4242 PAINTERS
4254 CARPENTERS
4274 PIPEFITTERS
5464 MACHINISTS
5482 WELDERS
5626 ELECTRICIANS
5914 PETROLEUM PLANT OPERATORS

EMPLOYERS:

UNION OIL CO.
RODEO AVE.
RODEO, CA. 94572
PHONE: 799-4411
SIZE: 5000+
TYPE: BRANCH OFFICE
FOR MORE INFORMATION TYPE
"EMPLY 29001SF"

STANDARD OIL CO.
841 STANDARD AVE.
RICHMOND, CA. 94801
PHONE: 232-2151
SIZE: 5000+
TYPE: BRANCH OFFICE

STANDARD OIL CO.
2001 DIAMOND BLVD.
CONCORD, CA. 94520
PHONE: 682-3800
SIZE: 5000+
TYPE: BRANCH OFFICE

SHELL OIL CO.
P.O. BOX 711
MARTINEZ, CA. 94553
PHONE: 228-6161
FOR MORE INFORMATION TYPE
"EMPLY 29002SF"

CERTAIN TEED PRODUCTS
1014 CHESLEY AVE.
RICHMOND, CA. 94804
PHONE: 234-2130
SIZE: 100-249
TYPE: BRANCH OFFICE

STANDARD OIL CO.
841 STANDARD AVE.
RICHMOND, CA. 94801
PHONE: 232-2151
SIZE: 500+
TYPE: BRANCH OFFICE

STANDARD OIL CO.
2001 DIAMOND BLVD.
CONCORD, CA. 94520
PHONE: 687-3800
SIZE: 500+
TYPE: BRANCH OFFICE

UNION OIL CO. OF CALIFORNIA
RODEO AVENUE
RODEO, CA 94572
PHONE: 799-4411

UNION OIL CO. OF CALIF. IS ONE OF THE MAJOR PETROLEUM PROCESSING PLANTS IN CONTRA COSTA COUNTY. THE TWO TYPES OF ENTRY-LEVEL JOBS WITHIN THIS FIRM ARE: OPERATOR TRAINEES, STARTING SALARY, $7.63-8.19/HR.; UTILITY PERSONS AT $7.65-8.85/HR. THEY DO NOT EMPLOY SUMMER OR PART-TIME WORKERS. DEPENDING UPON THE HANDICAP, THEY WILL EMPLOY THE PHYSICALLY DISABLED. MOST JOBS HAVE SHIFT WORK. APPLICATIONS, WHEN HIRING, ARE ACCEPTED AT THE REFINERY ADDRESS.

UNION OIL OFFERS THEIR EMPLOYEES BENEFITS BASED UPON SALARY GUIDELINES. THERE ARE TEN PAID HOLIDAYS EACH YEAR; TWO TO FIVE WEEKS PAID VACATION; FIFTEEN YEARLY SICK LEAVE DAYS; HEALTH AND LIFE INSURANCE, AND A DISABILITY PLAN. GOOD PAY AND JOB SECURITY ARE TWO ADVANTAGES FOR WORKING FOR THIS COMPANY.

PUBLIC TRANSPORTATION IS LIMITED.

CERTAIN TEED PRODUCTS
1014 CHESLEY AVE.
RICHMOND, CA. 94804
PHONE: 234-2130
SIZE: 100-249
TYPE: BRANCH OFFICE

?EMPLY50
 5000 WHOLESALE TRADE

AIR TRANSPORTATION PROVIDES 30,000 JOBS IN 90 FIRMS IN THE SAN FRANCISCO - OAKLAND METROPOLITAN AREA. TWO-THIRDS OF THESE ARE IN SAN MATEO COUNTY, IN AND NEAR THE SAN FRANCISCO INTERNATIONAL AIRPORT. THE NEXT LARGEST GROUP IS IN ALAMEDA COUNTY, IN AND NEAR THE OAKLAND AIRPORT. THE REMAINDER ARE SCATTERED AT CUSTOMER SERVICE OFFICES AND SMALL AIRPORTS THROUGHOUT THE AREA. CONTINUING GROWTH IS EXPECTED IN THE AIR TRANSPORTATION INDUSTRY, ALTHOUGH IT IS SUBJECT TO FLUCTUATIONS CAUSED BY GENERAL ECONOMIC CONDITIONS. MANY PEOPLE ARE INTERESTED IN WORKING IN AIR TRANSPORTATION, AND THERE IS STIFF COMPETITION FOR JOBS IN SOME OCCUPATIONS.

?EMPLY1414 F
 1414 STENOGRAPHERS

STENOGRAPHERS WORK FOR MANY TYPES OF EMPLOYERS BUT MAINLY FOR LARGE BUSINESS OR SPECIALIZED OFFICES. THE FOLLOWING TYPES OF EMPLOYERS PROVIDE THE MAJOR SOURCE OF JOB OPPORTUNITIES:

15	CONTRACT CONSTRUCTION
20	FOOD PROCESSING
28	CHEMICAL PRODUCTS
33	METAL PRODUCTS
36	ELECTRONICS AND AEROSPACE
48	TELEPHONE COMMUNICATIONS
60	BANKS
79	RESEARCH AND DEVELOPMENT LABORATORIES
80	HOSPITALS AND HEALTH SERVICES
82	ELEMENTARY AND SECONDARY SCHOOLS
83	COLLEGES AND UNIVERSITIES
91	FEDERAL GOVERNMENT
92	STATE GOVERNMENT
93	LOCAL GOVERNMENT
99	SELF EMPLOYMENT

FOR MORE INFORMATION ON ANY OF THESE EMPLOYER CATEGORIES, TYPE EMPLY AND THE 2-DIGIT CODE. EXAMPLE TO LEARN MORE ABOUT STATE GOVERNMENT TYPE "EMPLY 92".

?EMPLY60
 6000 BANKS

BANKS AND CREDIT AGENCIES, SUCH AS SAVINGS AND LOAN COMPANIES, PROVIDE MORE THAN 50,000 JOBS IN THE SAN FRANCISCO-OAKLAND AREA. THERE ARE OVER 600 SEPARATE ESTABLISHMENTS LOCALLY IN THIS INDUSTRY. MOST ARE SMALL WITH LESS THAN 20 EMPLOYEES, LOCATED IN BOTH CENTRAL BUSINESS DISTRICTS AND SHOPPING CENTERS THROUGHOUT THE AREA. GENERALLY THEY EMPLOY OFFICE MANAGERS, TELLERS AND OTHER CLERICAL WORKERS. THE LARGER BANKS HAVE A HEADQUARTER OFFICE IN DOWNTOWN SAN FRANCISCO OR OAKLAND AND EMPLOY VARIOUS TYPES OF SPECIALISTS.

ENTRY POSITIONS:

1144 BUSINESS EXECUTIVES	1454 TELEPHONE OPERATORS
1186 PERSONNEL MANAGERS	1634 APPRAISERS
1411 OFFICE MANAGERS	1644 BANK TELLERS
1412 SECRETARIES	1684 PROGRAMMERS
1414 STENOGRAPHERS	2146 ECONOMISTS
1416 CLERK TYPISTS	

EMPLY60
6000 BANKS

BANKS AND CREDIT AGENCIES, SUCH AS SAVINGS AND LOAN COMPANIES, PROVIDE MORE THAN 50,000 JOBS IN THE SAN FRANCISCO-OAKLAND AREA. THERE ARE OVER 600 SEPARATE ESTABLISHMENTS LOCALLY IN THIS INDUSTRY. MOST ARE SMALL WITH LESS THAN 20 EMPLOYEES, LOCATED IN BOTH CENTRAL BUSINESS DISTRICTS AND SHOPPING CENTERS THROUGHOUT THE AREA. GENERALLY THEY EMPLOY OFFICE MANAGERS, TELLERS AND OTHER CLERICAL WORKERS. THE LARGER BANKS HAVE A HEADQUARTER OFFICE IN DOWNTOWN SAN FRANCISCO OR OAKLAND AND EMPLOY VARIOUS TYPES OF SPECIALISTS.

ENTRY POSITIONS:

1144 BUSINESS EXECUTIVES
1186 PERSONNEL MANAGERS
1411 OFFICE MANAGERS
1412 SECRETARIES
1414 STENOGRAPHERS
1416 CLERK TYPISTS
1454 TELEPHONE OPERATORS
1634 APPRAISERS
1644 BANK TELLERS
1684 PROGRAMMERS
2146 ECONOMISTS

EMPLOYERS:

MECHANICS BANK
4TH AND MAC DONALD
RICHMOND, CA. 94804
PHONE: 529-2306
SIZE: 250-499
TYPE: HEADQUARTERS

BANK OF AMERICA
261 10TH
RICHMOND, CA. 94801
PHONE: 235-7500
SIZE:
TYPE:

BANK OF AMERICA
1307 BROADWAY
WALNUT CREEK, CA. 94596
PHONE: 934-1011
SIZE:
TYPE:

CROCKER NATIONAL BANK
2819 TASSAJARA VALLEY RD.
WALNUT CREEK, CA. 94598
PHONE: 939-5000
SIZE:
TYPE:

BANK OF AMERICA
2118 WILLOW PASS RD.
CONCORD, CA. 94520
PH. 934-1011
SIZE:
TYPE:

FIRST BUILDERS BANCORP
23 ALTARINDA RD.
ORINDA, CA. 94563
PHONE: 254-3654
SIZE: 250-499
TYPE: HEADQUARTERS

APPENDIX C

EMPLOYER DATA IN A COMPUTERIZED CAREER INFORMATION SYSTEM

BACKGROUND

Career information is generally considered to include all information about jobs that is relevant to persons making vocational plans or choices. Information about the specifics of the workplace--the hiring practices, training and advancement policies of specific employers--clearly fall within this scope. The need for such information in counseling settings has been documented in various studies.[1] Further evidence of need is that career centers in many contexts regularly solicit information from employers and provide it, in various forms, to their clients.

Computerized Career Information Systems (CIS's) would appear to offer an efficient way of maintaining and delivering employer data. To date, the only effort in this direction has been by the Colorado Career Information System (COCIS), which has brief profiles of some 100 large employers that can be accessed by computer.

There are several reasons why there has not been greater development of such data. First of all, gathering such data can be costly, and there is no general agreement that the value to the user justifies the cost. There are also questions of what are the best sources of data, how to format it, and how to avoid the pitfalls of being used as an advertising or recruitment channel for certain employers. For data from some sources, questions of confidentiality and of proprietorship are raised.

The users of EUREKA, The California Career Information System, were interested in adding employer data to the system, and to that end, support was obtained through the Vocational Education Act of 1978, Subpart 3 Grant to Diablo Valley College and the Richmond Unified School District.

The objectives of this component of the grant were to develop and test a model for incorporating employer data for the San Francisco Bay area into the EUREKA system.

The following report provides a description of the structure, content, and technical requirements of this model.

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[1] Margaret Thal-Larsen, Stephan Laner and Donald Mayall, Requirements and Design of a Labor Market Information System for a Large Metropolitan Area, (University of California, Berkeley, 1972)

DESIGN CONSIDERATIONS

There were several important considerations which influenced the design of the model. The system should be:

1. Comprehensive: It should represent the full universe of employers. If the system were limited to data solicited from, and provided by, select, cooperative firms, users would not have any information about the missing parts and might draw erroneous conclusions as a result.
2. Meaningful to users: The information should be understandable and relevant to users. Its relationship to other components of the system should be clear and should increase the user's understanding of the world of work.
3. Useful: It should be useful to a variety of system clientele, persons exploring an occupation in depth, persons engaging in a self-directed job search or considering job offers, and job developers.
4. Generalizable: To the greatest extent possible, it should be generalizable to other labor market areas, and should utilize standard statistical reporting categories and generally available data sources.
5. Localizable: It should permit the inclusion of highly specific local data, where available and relevant, within the context of the comprehensive framework and standard categories and concepts.
6. Transportable: It should be completely compatible with EUREKA software-data entry, operating programs, and conversion programs, and hence transportable to all EUREKA users and other CIS's.

DESCRIPTION OF THE MODEL

Based upon the foregoing considerations, an employer information model was designed based upon three interrelated components. These were:

1. Industry files: general descriptions of types of employers, which cover the entire labor market. These files also contain a reference to occupations and a list of employers of specified size.
2. Employer profiles: detailed information on selected large employers identified in the industry file.
3. Occupation-industry cross reference files: for each EUREKA occupation, a cross reference file that refers the user to the relevent industry file.

Industry File

An industry is a specific type of employing establishment such as a drug store or a plumbing contractor. An industry cluster is a group of closely related

industries with similar working conditions and employment outlook. For example, drug stores are included in the retail stores cluster, and plumbing contractors in the contract construction cluster.

The EUREKA industry file consists of 42 industry clusters, which include all significant industrial categories found in California. These clusters are defined in terms of 2-digit SIC codes, or groups of them. They are identified by 2-digit access codes. The industry file has the following components:

Description

1. A general statement of the products or services provided by that industry and its relationship to the economy as a whole.
2. Indicators of the dimensions of the industry within the specified labor market area. This includes:
    a. number of employees
    b. number of firms
    c. degree to which jobs are concentrated in particular types of firms, e.g., many small franchised outlets, few large manufacturing plants.
    d. locational information, e.g., in central business district, in waterfront area, on local bus lines.
3. Factors causing changes in volume of job opportunities in the industry. These may include:
    a. seasonality
    b. turnover
    c. long term trend
    d. special factors such as port development
4. General working conditions such as:
    a. type and level of benefit structure, e.g., in contract construction, benefits tend to be high, while in hotels and restaurants, they are minimal.
    b. availability of, and industry policy on, in-service and on-the-job training
    c. promotion and advancement policy
    d. facilities for the handicapped.
5. General hiring practices
    a. hiring categories, e.g., office, technical, plant, crafts
    b. typical methods of hire for each category
    c. existence of special features such as work sharing, temporary, and part-time jobs.

Entry Jobs

A list of jobs which may be entered by outside hire, by persons with necessary qualifications. This list will be arranged by hiring categories, where appropriate, and will include EUREKA titles and access numbers.

Major Employers

Directly following the descriptive statement is the Employer list. The Employer list includes the name, address, and phone number of employers in the industry category. Also included, where known, is the size group and whether this location is a headquarters, branch, or local establishment.

The employers listed in this section are arranged by geographic area and in descending order of size within the area. Parts of this section can be skipped by the user by hitting the carriage return, or the entire section can be skipped by hitting a period and return.

Employer Profiles

Detailed information on selected large employers are included in the employer profile section. These files are accessed by 5-digit code numbers, of which the first two digits are the same as the industry cluster number and the remaining three are a serial number.

(see page 5 for Employer File Format)

The Occupation-Industry Cross-reference File

For every occupation in the EUREKA file there is a corresponding Occupation-Industry Cross-reference file. This file contains the titles and 2-digit access codes for every industry cluster that provides significant employment opportunities for that occupation.

The purposes of this file are to illustrate to the user the range of employers that exist for most types of jobs, to encourage the user to think of the industry setting as another dimension of a career and to consider the consequences of working in various settings.

This file also serves as an index to the Industry files, so that each industry description and its employer list can be stored in one computer location.

EMPLOYER FILE FORMAT

1. Identifying information:
    a. firm name
    b. hiring office address
    c. name of person to contact
    d. telephone number
    e. work location(s) (if different)
2. Brief description of employer:
    a. products or services
    b. size
    c. type
3. Hiring practices (for each major entry route):
    a. specific titles of entry jobs
    b. how to apply, directly through unions, ES
    c. requirements for hiring, qualifications, education, age
4. Training programs:
    a. in-service
    b. external, company pays, employee pays
    c. apprenticehsip
5. Benefits:
    a. medical-dental
    b. leave
    c. profit-sharing
    d. insurance
    e. retirement
    f. other
6. Advancement policy:
    a. based upon employee evaluation, merit
    b. based upon bidding, seniority
    c. other
7. Accessability
    a. what transit lines are near the firm
    b. what parking is available at or near the firm
    c. what accommodations are available for the disabled
8. Special employment considerations:
    a. categories in which temporary or summer hires are made
    b. categories in which part-time hires are made
    c. arrangements for work sharing, flexible hours

SOFTWARE CONSIDERATIONS

Entry

All employer data is loaded in a file labeled EMPL19 using the ENTRY program. The area 19 designation refers to the San Francisco Bay area, and users must indicate that they want San Francisco area data to be able to access any part of this file. This can best be done by typing "SF" at the end of the access command. Thus, EMPL15 SF would access the Contract Construction Industry file, EMPL1414 SF would access the Stenographers cross-reference file.

Cross reference files and profile of major employers could be developed on a state-wide basis and loaded into the common area, ØØ, while locally specific data such as employer lists and profiles of smaller employers would be loaded in specific area files. The driver program would provide the user with the common data, followed by the specific data for the area the user was interested in.

Space Requirements

The cross-reference file requires at least one HP record per EUREKA occupation number, currently 260, estimated to rise to 330 by the end of 1979. The data itself consists of about 240 characters per occupation and hence rarely will exceed one record per occupation. No additional space is required in the OCC2 file, since all OCC numbers are already there.

The Employer profile and Industry file titles must be added to the OCC2 file, hence additional records will be required in that file, one for each title. The CIS software treats the 2-digit Industry access codes the same as 2-digit Occupational cluster codes, hence Industry file codes must be 2-digit numbers not used for occupation clusters. Leading zeros are suppressed, leaving 90 possible codes, of which 26 are currently used for occupation. It appears the 42 access codes are sufficient for the Industry files. The Employer profiles use the same 2-digits as the Industry file, permitting up to 999 profiles per industry--far in excess of current mini-computer storage.

Space requirements of the Employer profile and Industry data in the EMPL file will vary but is estimated as follows:

Employer profile - 1 record per employer

Industry file - 2 records per industry and 1 record for every 20 employers on the industry list

Estimated space required for test model:

File		
OCC2	42 industry codes	42 HP records
	15 profile codes	15 "
EMPL19	42 industry files	84 "
	125 employer names	7 "
	15 profiles	30 "
	260 cross reference files	275 "
		453

DATA CONSIDERATIONS

Sources

1. Cross-reference files: The best source of data on occupations by industry, for the occupation-industry cross-reference files, is the "Extended Matrix," which is prepared by the California Employment Development Department (EDD), as part of the Occupation Employment Statistics (OES) program. The data currently available uses the Census Bureau data base and occupational categories (440). This source provides estimates of employment by occupation within Census industry category (201) for the state as a whole and labor market areas within the state. In the near future, data based upon employer surveys, using the somewhat different OES classification code, will supplant the current series.

Another source of data used in the test model was the employer survey data collected in 1976 and 1977 in five San Francisco Bay Area counties by the Center for Educational Planning in San Jose. These surveys used OES survey procedures, 3rd edition DOT and Census occupational titles and 3-digit SIC codes. This source, thus, provides greater detail than OES, but is of limited value for a statewide system since there is no comparable data for Southern California. There is also no committed funding to maintain the data, whereas OES is an on-going, federally funded, statistical program.

2. Industry files: Data on industry structure, size and trend by labor market area is available from reports published by EDD, principally California Employment and Payrolls, and the Annual Planning Reports. Information on working conditions and hiring practices must be developed by analysts, in much the same way as the occupational description, using industry studies, collective bargaining agreements, and publications of the firms themselves.

There are a number of sources for Employer lists, each with certain drawbacks. These are:

a. Proprietary sources such as Contacts Influential or Bay Area Employers Guide; these have an initial cost and limitations on their use.

b. The yellow pages of the telephone book; this gives no indication of size and may not give a clear picture of industrial activity.

c. Directories prepared by chambers of commerce; these usually exclude certain industries.

d. Public agency sources such as the Franchise Tax Board and EDD, which place certain restrictions on the use of the data.

3. Employer profile data: The only source of this is direct solicitation of the employing establishment. Such data gathering was outside the scope of the VEA grant. Hence profile information for the test model was limited to that available from user sites, notably Santa Clara County Office of Education and Diablo Valley College Outreach Project.

Access to Data

Access to specific employer data is sometimes restricted, as in the case of private sources, by copyright law, and as in the case of public sources, by policy or regulation. In some cases, there are statutory restrictions. The California Unemployment Insurance Code states "information furnished to the director (of the Employment Development Department) by an employing unit...shall not be open to the public..." and "such information may be tabulated and published in statistical form...except that the name of the employing unit or of any worker shall never be divulged." (Sec. 1094) This statute applies only to data which employers are required by the UI code to submit to the agency. EDD has, at times, made certain employer data available to the public, notably information on closed job orders and lists and directories of employers, primarily as a service to jobseekers.[1]

The Freedom of Information Act (5 U.S.C. 532) provides public access to data collected by government agencies. General information on employers, such as name, location, and type of business activity appear to be accessable under this statute.

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[1] Curtis C. Aller et al, Evaluation of the Hayward Manpower Delivery System Concept, p. 19.

In precedent cases it has been held that, data about employers may be exempted from disclosure only if disclosure would result in significant competitive injury to the company. The employer's right to privacy clearly does not include a right to do business anonymously.

These problems do not arise where the information is provided directly by employer and with their informed consent to its use for career guidance. Many Local Education Agnecies (LEA's) have long made it a policy to gather such information and report that they maintain good relations with the employer community.

The best approach to obtaining employer data for a computerized guidance information system appears to be to use the resources of LEA's to gather employer profile data, in accordance with standard procedures, and to assemble this into a comprehensive structure. The aggregate dimensions of the structure would be developed from the published reports prepared by EDD. The list of employer names should use some public agency source to insure that coverage is complete.

TELEPHONE OPERATORS 14540

PERSON TO CONTACT:
MR. WILLIAM JACKSON JR.
POSITION:
STAFF SPECIALIST
PHONE: 835-7800
BEST TIME TO CALL FOR AN APPOINTMENT: BEFORE NOON, MONDAY THROUGH FRIDAY.

PLACE OF EMPLOYMENT:
PACIFIC TELEPHONE
2100 WEBSTER STREET ROOM 1042
OAKLAND 94612

MORTICIANS 81820

PERSON TO CONTACT:
MR. MARK WILSON
POSITION:
OWNER
PHONE: 232-4303
BEST TIME TO CALL FOR AN APPOINTMENT: 8:00AM TO 5:00PM, MONDAY THROUGH FRIDAY.

PLACE OF EMPLOYMENT:
WILSON AND KRATZER
24TH AND BARRETT
RICHMOND 94804

PHYSICISTS 26210

PERSON TO CONTACT:
DR. KEN BREGGER
POSITION:
PROGRAM MANAGER FOR MAGNETIC FUSION ENERGY
PHONE: 486-6411
BEST TIME TO CALL FOR AN APPOINTMENT: 8:00AM TO 5:00PM, MONDAY THROUGH FRIDAY.
SPECIAL INSTRUCTIONS: MR. BREGGER WILL BE THE CONTACT PERSON AND PUT YOU IN TOUCH WITH A PHYSICIST IN YOUR AREA OF INTEREST.

PLACE OF EMPLOYMENT:
LAWRENCE BERKELEY LAB.
#1 CYCLATRON ROAD, BLDG. #5 RM. 119
BERKELEY

EDUCATION ADMINISTRATORS 11360

PERSON TO CONTACT:
DR. REX CRAIG
POSITION:
COLLEGE PRESIDENT
PHONE: 235-7800
BEST TIME TO CALL FOR AN APPOINTMENT: 8 AM - 5 PM, MONDAY THROUGH FRIDAY

PLACE OF EMPLOYMENT:
CONTRA COSTA COLLEGE
2600 MISSION BELL DRIVE
SAN PABLO 94806

PAINTERS 42420

PERSON TO CONTACT:
MR. CLYDE CLAYTON KNIGHT
POSITION:
OWNER
PHONE: 524-2332
BEST TIME TO CALL FOR AN APPOINTMENT: AFTER 4:00PM MONDAY THROUGH FRIDAY.

PLACE OF EMPLOYMENT:
C.C. KNIGHT PAINTING
541 BONNIE DRIVE
EL CERRITO 94530

APPENDIX E

BEING A PART OF THE

EUREKA VISIT FILE

FOREWORD

Why is your involvement in the VISIT file an important contribution to your community?

By agreeing to participate, you could very possibly help some people make the most important choice of their lives, the career choice. These people need interaction with people working in various occupations to learn what the world of work is all about. You will have a chance to share some of that knowledge of your occupation which normally is gained only through years of experience. Through this interaction, you will be helping people help themselves in making the right occupational choices or preventing the making of wrong choices.

Finally, this interaction allows you to influence the educational process in the community. This input will foster understanding between those involved in education and the community at large.

This booklet is made up of questions and answers aimed at answering some of the questions you may have about your involvement in the VISIT file. We truly hope that you will find your involvement in this effort to be both rewarding and enjoyable.

Who uses Eureka?

Eureka is used in many high school, community colleges 4-year colleges, and government agencies. Use of Eureka is expanding rapidly and can be used in many institutions where clients need information about the world of work.

How does the user get access to my name?

The Eureka Career Information System is a new organization designed to provide computerized occupational information for vocational guidance purposes in various areas throughout California. The VISIT file is one part of this information system and is designed to provide the user of the system with an opportunity to talk to someone actually working in an occupation of interest to him or her. Since your name is stored in the computer, the user receives a printout of your name when he or she request the VISIT file for your occupation.

Is this information about me secured against unauthorized use?

Yes. VISIT file information will only be made available to the users of the system. There are electronic safeguards in the computer to prevent unauthorized accessing of the information.

What other kinds of information are available?

Eureka has several other files which contain: Current employment outlook, wages and skills needed for the job; ways to prepare for the occupations; training and education programs in California; schools where the educational programs are offered; and a bibliography which lists publications pertinent to each occupation which are available in career centers and libraries.

Where is this computer located?

The Eureka Project is operational at many computer centers throughout California. Your Visit File Coordinator will tell you which computer lists your name in the Visit File. Your name will be listed only in your area.

Now that I'm on the VISIT file, what happens next?

You may be contacted by an individual who would like to discuss your occupation with you. Since there will be more that one name per occupation on the file, your name may not be selected. On the other hand, if you feel that too many people are contacting you, you may have your name removed either temporarily or permanently.

How long should an interview with an individual take?

You can make your interviews as long or as short as you desire. Probably, half an hour will be about right.

Where should an interview be held?

It would be helpful if the interviews could be held at your place of work, so a person could see where you work and what you do, as well as hear about it.

When these interviews take place, what might these people want to know?

Some of the individuals coming to interview you will probably be nervous and may not know what to ask. If an interviewer asks a question you do not wish to answer, tell him so frankly.

The person coming to talk with you has access to other resources for personal counseling and guidance; therefore, your interview does not need to deal with his personal problems.

The following are some of the questions usually covered in a vocational interview:

1. What is your job like? (A typical day--what do you do? What kind of problems do you deal with?)

2. What are the most important personal satisfactions and dissatisfactions connected with your occupation?

3. Some interviewers will ask what contribution your occupation makes to society. What are the ethics of your occupation? What social obligations go along with a job in your occupation? What kinds of organizations do you have to join?

4. What things did you do before you entered this occupation? Which have been helpful?

Will people be coming to these interviews looking for jobs?

No. Eureka intends to give information about occupations to people who are choosing a career. Some individuals may be seeking jobs but it's not your responsibility to assist them in this search.

Is there a lot of paperwork involved?

No. Once a year, we will contact you to ask if you would like to remain on the VISIT file. At that time, we hope that you would share your experiences and observations related to those who have visited you.

What happens if I go on a vacation or my address or telephone number changes?

If you are going to be unavailable for a period longer than four weeks, please contact us. Also, if your address or phone number changes, a phone call is all that is required.

If I have questions or problems to discuss, who should I contact?

If you have any questions or problems, please contact:

Carol Johnston
Eureka Visit File Coordinator
Diablo Valley College
Pleasant Hill, CA 94523
(415) 827-5977

who will be coordinating the VISIT file in your area.

APPENDIX F

LABOR MARKET INFORMATION NEEDS

FOR CAREER COUNSELING OF THE DISABLED

A study prepared as part of a
Vocational Education Act
Subpart 3 Project

BY: Ellinor Wheeler
Donald Mayall

Project EUREKA
Diablo Valley College &
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Richmond, California

(415) 237-8384

January 1979

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LABOR MARKET INFORMATION NEEDS FOR CAREER COUNSELING OF THE DISABLED

OBJECTIVE

This study was conducted as part of the VEA Subpart 3 Project to determine the types of labor market and educational information needed for career counseling of disabled youth and adults. The data was obtained through interviews with rehabilitation counselors and with teachers and other professionals who provide counseling in the absence of counselors in a variety of settings. It is intended that information of the types found to be needed will be added to EUREKA files to the extent that funding for this activity is available.

THE CLIENTELE

Disabled persons needing career counseling range from adolescents with congenital impairments to mature persons having considerable work experience but needing to change occupations because of a recently sustained disability caused by illness or injury.

Entrants to the labor market are people preparing to enter paid employment for the first time. Most disabled clients who are entrants are youth who have congenital disabilities or disabilities caused by illness or injury which occurred at an early age. Some entrants, however, are adults who did not previously enter the labor market because of household responsibilities, because they had not previously received the necessary counseling and assistance or training to do so, or for other reasons. The youth, and most adult entrants, lack familiarity with their own abilities and interests as they relate to employment. Sometimes, too, their physical, emotional, or mental disabilities have created learning disabilities, and the client may be well behind grade level in one or more academic subjects. Thus, in career counseling, entrants frequently need considerable assistance in identifying their interests and aptitudes as well as detailed labor market information which specifies the aptitudes and abilities required for each occupation.

Reentrants, on the other hand, are people who have had substantial paid work experience. Generally, disabled clients who are reentrants are adults who had no severe disability during their growing years; fewer reentrants than entrants had serious learning disabilities during their school years. Most have had successful work experience in one or more occupations and are familiar with their own vocational strengths and interests. They usually need less analysis of their own abilities than do entrants, but they still need labor market information which specifies the aptitudes and abilities required for each occupation.

THE DISABILITIES

The disabilities of these clients vary widely and occur in many combinations. Physical, mental, and emotional disabilities often exist in combination. In one client, for example, a neurological malfunction may cause a speech impairment, which may cause an emotional problem and inability to get along well with most other people. However, another client with a similar speech impairment may have no emotional problems.

From the point of view of the career counselor, the cause of the disability is less important than its manifestation: For example, mental retardation has the same consequences in vocational choice whether it is genetic or is caused by damage from a harmful substance. And inability to lift heavy loads is the same whether caused by a heart ailment or a back injury. Therefore, counselors need vocational information which relates to abilities required, rather than to occupations which are not compatible with specific disabilities.

Counselors indicate that the impairments listed below are those with which they work most often and are those for which they need information about the requirements of occupations:

Has limited body motion
Has poorly controlled body motion
Has one or more limbs missing
Has paralysis
Has poor balance
Tires easily
Cannot stand for long periods
Cannot sit for long periods
Cannot stretch/reach
Cannot stoop
Cannot lift heavy loads
Cannot tolerate fumes or certain other atmospheric conditions
Has seizures
Has memory lapses (short or long)
Has little tolerance for stress
Catches on slowly
Gets along poorly with most other people
Has unclear speech
Cannot speak
Has poor hearing
Is deaf
Cannot see well, even with corrective devices
Is blind
Reads poorly
Writes poorly
Has poor mathematical ability

TYPES OF COUNSELING SETTINGS

In California, career counseling for the disabled generally begins in public secondary schools. There, recent emphasis on "mainstreaming" disabled students rather than segregating them in separate schools or classrooms, increasingly means that counseling and other services are provided by staff having no training in working with the disabled. It was found in this study that counselors without this training feel the need for labor market information which is more detailed than that needed by counselors trained in working with the disabled.

At the post-secondary level, all state universities and community colleges are required to provide specialized services for the disabled, including career counseling.

The California Department of Rehabilitation is the primary provider of career counseling for adults, both entrants and reentrants. It is responsible for rehabilatative efforts for all disabled persons receiving Social Security payments. With field offices throughout California, this agency serves a large number of clients each year. Disabled veterans are served by the United States Veterans' Administration. Many of this agency's clients are reentrants, but some have had very little experience in either military or civilian work and are actually entrants to the labor market.

Private firms and agencies provide career counseling for a smaller number of disabled youth and adults. Private profit-making rehabilitation services work mostly with reentrant clients who were recently disabled and were referred by insurance companies. Private non-profit agencies work mostly with entrants. Some accept clients having any type of disability, but some accept only those having a specific type of disability, such as cerebral palsy or mental retardation. Often, non-profit agencies operate training, recreational, residential or sheltered work facilities in addition to providing counseling.

INFORMATIONAL NEEDS

Rehabilitation counselors reported the need for many types of labor market information. They need rather detailed descriptive information about an occupation, such as the job duties and working conditions, so that they and clients can visualize the work being performed in its usual setting and see if the client considering the occupation could perform the work. Experienced counselors believe that this is one of the most effective ways of matching a client with an occupation, because disabilities occur in many degrees of severity and in many combinations. Additional needs for descriptive information include the employment outlook and typical pay rates in the occupation, to determine if it is an economically feasible choice and to justify the training time and expense required. Counselors also need facts about the recommended training and the other entrance requirements for the occupation and about how to find a job once the training is completed.

In addition to this descriptive information, counselors need some very specific information which is obtained only from costly job analyses. This includes information on aptitudes required for successful performance of the work, the physical demands of the job, and temperaments or emotional adjustment factors in the work. Counselors familiar with the data on these subjects collected for the Dictionary of Occupational Titles (DOT), and available in computer printout form, agree that this would serve their needs well.

Following is a list of the information needed in more specific terms:

1. Information on Job Duties

This descriptive material needs to include the major duties performed and the purpose for which they are carried out. It should also include any particular tools or techniques used. For occupations with a wide variety of duties, it should list a cross section, emphasizing those on which the most time is spent, those that are peculiar to the occupation, and those which are the most difficult or for which special skills are needed.

2. Information on Working Conditions

This information should include:

A general description of the work setting, such as "office" or "shed or open shop."
Unusual shifts or other factors that might make it difficult to take advantage of available public transportation.
Mention of any of the following that were found in the DOT study of the occupation:
Extremes of cold or heat or extreme temperature variation.
Wetness or high humidity.
High noise level or vibration of the worker's body.
Fumes, odors, dust, toxic conditions, poor ventilation.
Hazards which produce definite risk of bodily injury.

3. Information on Employment Outlook

This information should include:

Some indication of the size of the occupation and whether or not either growth or decline is expected.
The geographic areas in which the occupation is concentrated.
The relative supply of qualified, experienced persons seeking employment in the occupation and the number of job openings.
The relative supply of trained and qualified but inexperienced beginners seeking this work and the number of openings for which a beginner might be accepted.
Any expected changes which would affect the ease or difficulty of finding a job in the occupation in the next few years.

4. Information on Pay Rates

This information should include:

The typical pay rate at which a qualified beginner might start.
The typical pay rate of a worker with several years on the job.

5. Information on Preparation

This information should include:

The amount and type of education or training required, and the amount and type preferred.
Where this education or training can be obtained.
Information about educational and training facilities, including availability of special services to disabled students, presence or absence of architectural barriers to the disabled, and availability of public transportation.
Where to obtain information on any license or certification which must be obtained before employment.
Any specific skills or abilities required and, where possible, the level of proficiency required. For example, "type accurately at 50 to 60 words per minute and spell accurately", "valid California chauffeur's license and good driving record", or "able to make customers feel at ease."
Information on proficiency levels required in reading, writing, and arithmetic.

6. Information on How to Find A Job

This information should include:

Mention of anything that can improve the job seeker's competitive advantage, such as a hobby or experience in a related occupation.
The sources from which most beginners are recruited and hired, such as joint apprenticeship committee, direct application to firms, or "helpers have first chance at trainee jobs."
Firms in the local area that are likely to employ people in this occupation.
Which of these are on or near a bus line?
Which are free of architectural barriers to the disabled?

7. Information on Aptitudes

The following aptitudes should be mentioned if required at average or above average level for successfully learning or performing the work. When the technical name for an aptitude does not obviously have meaning to clients, it should be described in lay language. For example, clerical perception can be called the ability to read accurately, compare, and copy words and numbers.

Intelligence
Verbal, which needs to be broken down into:
Reading
Writing
Speaking
Numerical
Spatial
Form perception
Clerical perception
Motor coordination
Finger dexterity
Manual dexterity
Eye-hand-foot coordination
Color discrimination

8. Information on Physical Demands

This information should include:

The amount of weight that must be lifted, carried, pushed, or pulled; the maximum which must be moved frequently, and the maximum which must be moved occasionally.
Mention of these factors if they are regularly required:
Climbing and/or balancing
Stooping, kneeling, crouching, and/or crawling
Reaching, handling, fingering, and/or feeling
Talking and/or hearing
Seeing, which has the following functions that should be mentioned separately if critical to the occupation:

Acuity
Depth perception
Field of vision
Accommodation
Color vision

In addition to consideration of the above physical demands, counselors want:

An indication of the type of activities for which use of an arm or leg, seeing, and hearing are needed in an occupation.
Some indication of the amount of uninterrupted sitting or standing required.

9. Information on Temperaments

A need to tolerate stress is the major temperament factor in which counselors are interested. Stress, as measured in DOT studies, relates to performing adequately when the unexpected occurs, or when taking risks, or when confronted with the critical. Counselors are also interested in knowing which occupations have stringent quality or quantity production controls, because these controls are stressful to some workers.

10. Other Information

Disabled clients frequently lack confidence that their abilities are marketable. Also, many special devices have been developed to help disabled workers perform on jobs. For these reasons, counselors have asked that EUREKA give all users (or all disabled users) a statement such as: "If you have a disability, do not eliminate any occupations from consideration because of your disability. Talk with a rehabilitation counselor."

PLAN FOR DEVELOPING NEEDED INFORMATION

Each description in the EUREKA files is to be expanded at the time of its next revision to include the various types of information list above.

The format for the EUREKA occupational description has been revised to absorb these additions more easily and to accommodate other planned changes. Attached is the description for Urban Planners, which has been revised in the new format and expanded to include the additional data (see Appendix A).

Data will be obtained on all items in the list of informational needs. However, in the occupational description, factors with negative reports will not necessarily be listed. For example, if finger dexterity is not needed at an average or above average level, this factor will not be mentioned. And if stooping, kneeling, crouching, or crawling are not generally required, they will not be mentioned.

The exact location in the new format of each informational need is shown in the following table:

INFORMATIONAL NEEDS FOR CAREER COUNSELING OF THE DISABLED	LOCATION OF INFORMATION IN REVISED EUREKA FORMAT
Job Duties	Contained in introductory section.
Working Conditions	Contained in "Working Conditions.
Employment Outlook	Contained in "Current Employment" and "Outlook."
Pay Rates	Contained in "Pay."

Preparation	Amount and type of education: Contained in "Hiring Practices" and developed in more detail in "Preparation." Where training can be obtained: "Related Educational Programs: lists code numbers for applicable programs of study. A separate file is currently available on each such program. Information about training facilities: A separate file contains information about each of California's community colleges and public colleges and universities, popular private colleges and universities in California, and certain out-of-state schools. This file currently contains some of the information wanted. The additional information will be added after it is obtained in a questionnaire to be sent to facilities in September 1979. Present plans call for adding files on other training programs, including CETA and ROP. Licensing: Contained in "Licensing" section if applicable. Specific skills required: Contained in "Hiring Practices". Proficiency levels: Contained in "Hiring Practices."
How to find a Job	Advantage to jobseeker: Contained in "Tips", or sometimes in "Preparation", "Outlook", or "Hiring Practices", depending upon type of advantage. Recruiting Sources: Contained in "Hiring Practices." Firms: Contained in a separate file of local employers now being developed. Questionnaires sent to employers beginning in December 1978 ask about bus transportation and architectural barriers.
Aptitudes	Contained in "Abilities".
Physical Demands	Most contained in "Working Conditions. Types of activities for which arms, legs, seeing, and hearing are needed will be in introductory section. A critical physical demand used in screening job applicants (e.g. color vision for electronics assemblers or pole climbing for line workers) will be mentioned in "Hiring Practices."

Temperaments	Stress is mentioned in "Working Conditions." Some other temperament factors are utilized in QUEST, the questionnaire a client can use for obtaining a selected list of occupations for further consideration.
Other (Do not eliminate occupations)	Will be programmed into beginning of QUEST printout or another suitable place.

ADDITIONAL SUGGESTIONS OF COUNSELORS

Counselors and other professionals consulted in this study expressed a desire for several additional types of information which have not been included in the list under "Informational Needs." These suggestions and the reason each was not included is given below.

"Use QUEST or another method to provide a list of occupations suitable for persons with specific handicaps." The reason for not following this suggestion is given under "The Disabilities" on page 1.

"Provide a list of occupations suitable for liberal arts majors". This suggestion will be investigated further and may be carried out, but not as part of this project.

"Tell about the specialized equipment that has enabled persons with some disabilities to perform in some additional occupations." This is a specialized field of knowledge not of general interest in a labor market information system but available through other sources to rehabilitation counselors.

"Provide information on effective job-finding techniques, such as how to be interviewed." This is a specialized aspect of labor market information, and one which EUREKA is not now prepared to enter. Several excellent publications are available on this subject.

"Provide a list of firms that routinely hire disabled persons or would like to do so." The most experienced counselors interviewed feel strongly that the place to start in counseling is with the client's abilities and interests, and then try to develop an appropriate job placement. In addition, the relatively small number of firms that readily hire disabled persons should not be expected to absorb every disabled jobseeker. At any rate, this information is not available to EUREKA staff and can best be obtained by a sharing of information among rehabilitation counselors.

APPENDIX A

Urban Planners 2314

DESC 00

Urban planners develop plans for the orderly growth and improvement of cities, counties, and regions. They collect and analyze data on such matters as land use, transportation networks, and environmental resources. Planners meet with citizen groups to interpret development plans and to learn of community needs and public preferences for future development. They meet with land developers to explain regulations and to describe the type and location of development desirable under current plans. Typically, they present plans they have developed to a legislative body, such as a city council or a county board of supervisors, and plans are not official unless adopted by this body. Planners enforce plans which are in effect by approving proposed developments which conform with the plan or withholding approval on those that do not conform and negotiating for changes that will permit the proposals to be approved. (DOT #199-167-010)

Abilities: High level of ability required: Verbal ability to confer with citizens, developers, and government bodies and to prepare clear written reports.

Above average ability required: Ability to catch on to things and to make judgements, ability to do simple arithmetic, ability to compare and find similarities and differences in visual forms, and ability to visualize two- and three-dimensional forms and their relationships in space.

Average ability required: Ability to accurately check or copy words or numbers, ability to use fingers to move small objects such as a pen or a pencil, and hearing ability.

Working Conditions: Most of the work is performed indoors in offices. Urban planners sit at a desk most of the time, but the work requires some moving around to obtain files, attend meetings and visit areas to be developed or planned. Lifting requirements are limited to records and materials of less than 10 pounds. Regular hours are approximately 8 to 5, Monday through Friday. Occasional attendance at evening meetings is also required. The occupation can provide considerable satisfaction when the planner's work results in functional and esthetic development of the community. It can lead to frustration, however, if the legislative body does not adopt the plans developed.

Promotion: In a large agency, a person with a degree in planning but with no experience might start as a junior planner. After another two or more years, a qualified worker might be promoted to associate planner. Although additional promotions are possible--to senior planner, assistant director, and planning director--few positions are available at these higher levels, and promotion to them is very cometative. A medium-size agnecy would have one or two fewer levels for progression, and a small agency would have a total of only two or three levels. When the planning staff is small and turnover is low, a planner may have to move to another agency to obtain promotion.

Employers: City and county planning departments, regional planning agencies, state and federal government, provate consulting firms, and self-employment as a consultant. (see EMPLY 2314)

Hiring Practices: The minimum educational requirement is a bachelor's degree in city planning or in a related field such as architecture, landscape architecture, or engineering. Many employers prefer a master's degree in city or regional planning. Planners must be able to get along with the public and should have imagination to develop new answers to problems.

Finding the Job: Most jobs are obtained by applying directly to employers or through personal contacts with others in the field. Public agencies may require that application be made through civil service procedures, which usually involves a competitive written test and a considerable wait before hiring.

Pay: Beginners start at around $1,000 a month. A planner with five years of experience usually earns between $1,500 and $1,800 a month. A few planning directors of large agencies earn $35,000 or more a year.

Current Employment: Approximately 2500 planners are employed in California, with the majority concentrated in highly populated areas.

Outlook: Currently, there is a large surplus of inexperienced jobseekers trained in urban planning. Employers are highly selective when hiring. Growth is expected in the occupation because of increased emphasis on the land use, environmental, and social service aspects of planning. However, enrollments in master's degree programs is expected to remain large and continue to produce an oversupply of qualified applicants.

PREP 00

Preparation: A master's degree in city or regional planning is the preferred education to enter this occupation. Because of the surplus of qualified beginners, jobseekers without this preparation will find it difficult to obtain their first job as an urban planner. Most of those who succeed will have a bachelor's degree in city planning or in architecture, landscape architechure, or engineering. Many will also have some related experience or a special skill, and many will find their jobs in areas some distance from major metropolitan areas. Undergraduate or graduate study in sociology or in environmental problems are an advantage when seeking that first job.

Related Educational Programs: City Planning (Prog 589), Architecture (081), Engineering (251).

Tips: Jobseekers who do not have a master's degree in city and regional planning may find their best employment prospects to be in small agencies or in agencies distant from metropolitan areas. Jobseekers who find that one year of experience is required for all available jobs can start at the subprofessional level, as an urban planning aid or technician, in an agency having a reputation for promoting qualified subprofessionals to the professional level.

APPENDIX B

PROFESSIONALS CONSULTED IN THIS STUDY

California Department of Rehabilitation, San Jose
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APPENDIX G

REPORT ON THE USE OF EUREKA BY DISADVANTAGED STUDENTS

EUREKA, The California Career Information System, is used by many different settings throughout the state by people of varying ages. The group of users ' investigated for this report consisted of high school and junior college students who are termed "disadvantaged."

As defined in the 1972 California State Plan for Vocational Education, these are the characteristics of disadvantaged students:

1. Academic difficulties; including language, reading, and general educational problems.

2. Cultural difficulties

3. Economic difficulties

4. Social difficulties; including passive and aggressive behavior

For each of these disadvantagements I devised the following series of questions designed to ascertain the special problems disadvantaged students have with EUREKA.

1. Academic difficulties

   a. Language

      1. Is the vocabulary of EUREKA too sophisticated for these students?

      2. Is the amount of information excessive (i.e., overwhelming, threatening, intimidating, etc.?)

      3. Is the syntax of the language too complicated?

   b. Reading

      1. Is the reading level of the information too advanced and therefore difficult and frustrating?

      2. Are the instructions, prompts, and text messages in the printouts too difficult to understand and follow?

   c. General educational problems

      1. Are there any special problems related to using the equipment?

      2. How does the student handle the unexpected?

      3. Is the student able to work independently?

2. Cultural difficulties

   a. How do future goals of the students correspond to the kind of information they receive from EUREKA?

   b. What is their attitude towards postsecondary education?

   c. Is the school information viewed optimistically or pessimistically?

3. Economic difficulties

   a. Are false hopes generated by the occupational suggestions?

   b. How does the educational information relate to the future expectations of these students?

4. Social difficulties

   a. If they are socially "passive," are they intimidated or reassured by the objective nature of the machine?

   b. If they are socially "aggressive," are they frustrated at the inability of the machine to respond to their feelings or calmed by the machine's impersonal nature.

Armed with a working definition of "disadvantaged" and the related questions, I proceeded to interview a number of high school and community college staff who, in a variety of capacities, help students use the EUREKA system.

Following is a list of the interviewees, their job titles, and their respective schools:

Name	Title	School
Donata Hubert	Learning Center Tutor	Richmond High School
Brad Warren	Learning Center Tutor	Richmond High School
Bob Tryon	Career Center Coordinator	Berkeley High School
Sally Terrill	Work Experience Secretary	Ells High School
Judy Sokol	EDP Resource Center Coordinator	Woodrow Wilson High School (San Francisco)
Chris Hadley	Counselor	Laney College
Wayne Daniels	Counselor	Contra Costa College

During the interviews, I presented the description of a disadvantaged student first and then solicited concurrence or objections to the definition. In all cases the definition met with approval.

I next went over the list of questions and recommended that these be discussed in reference to the major components of EUREKA, i.e., QUEST and the QUEST list of jobs, the occupational descriptions, the preparations and programs of study, and the school information.

--INTERVIEWS--

For coherency, the following summary statements of conversational responses to my questions have been divided into the four areas of disadvantagement outlined at the beginning of this report.

The first two people I interviewed were Donata Hubert and Brad Warren. Both are tutors in the Learning Center at Richmond High School and are responsible for assisting students with the EUREKA program.

Academic Difficulties

Some students have difficulty understanding what to do at the very beginning of the program. They don't always make the connection between the QUEST Answer Sheet they've completed and the instruction to type "QUEST." They don't have a clear understanding how the individual parts of the program fit into the whole system. They are confused about how QUEST is related to the rest of the information in the files. They seem to be ill-prepared when they come to the terminal although the classroom teacher has gone over the materials with them. The fault may lie with how EUREKA is introduced by teachers. The students seem to lack an understanding of the rationale behind the system and consequently have trouble making sense out of the specific steps.

Some of the occupational descriptions are too long for them and they get restless and bored. This is especially true for the 9th and 10th graders but less so for the 11th and 12th graders. They enjoy interacting with the machine and are not prepared to sit and wait for a lengthy printout.

If they need assistance and type in "Help," they often don't know how to use the instructions given. Typing in "Info" seems to give them too many instructions at once.

The general reading level seems about right for most of the 11th and 12 th graders.

Cultural Difficulties

For those students to whom English is a second language (e.g. Spanish-speaking and Vietnamese students) extra help is needed to overcome the language problems with EUREKA as with the rest of their school work.

When college is not an option for certain students, EUREKA can provide good information about jobs that don't require postsecondary education.

Economic Difficulties

More financial aid information would be useful to disadvantaged students who wish to attend college. And because they see the military as another feasible way to finance postsecondary education and training, they would like EUREKA to supply more military information.

Social Difficulties

Easily frustrated students are just as impatient with EUREKA's typing demands as they are with anything mechanical. Even the minimal skill required to find the letters on the keyboard frustrates them. Those who have had any previous typing training, however, are considerably more confident at computer terminals than those who have never typed.

Lack of confidence carries over into other aspects of using the system as well. The beginning options, which require that certain decisions be made before continuing, stymie some users. They are afraid of the consequences of making a mistake at the terminal. Some think the computer will know that they have made a mistake and perhaps even break down because of them. Some are also in awe of the technology and intimidated by the mystique surrounding computers.

The next person interviewed was Bob tryon, Career Center Coordinator at Berkeley High School.

Academic Difficulties

According to Bob Tryon, the general academic level of the student population at Berkeley High School is higher than at other urban high schools. This is probably due to the influence of the University of California and to the fact that a large percentage of Berkeley students do go on to college.

This unique aspect of Berkeley High helps to explain why even the disadvantaged students there seem to have fewer problems with EUREKA than students at the other schools I visited. Although they often need a little extra help with some of the directions, they have little or no difficulty either understanding the QUEST questions or handling the reading level of the information.

Frequently, concrete examples and detailed instructions need to be given at least once so students know how to access the various files. They seem to need a personal touch before they can work independently. Also, it is often more beneficial to receive this help in a piecemeal fashion because their comprehension and retention of information falters if they are given too much at once.

A certain percentage of Berkeley's poor readers do need an aide or a group situation as opposed to working alone.

Cultural Difficulties

For those students who are not considering college, the descriptions of occupations which do not require postsecondary education are very enlightening.

The occupational information encourages students to formulate future goals that are realistic and feasible. This file, occupational descriptions, is the most used and appears to be of considerable importance. The Preparation and Program files are next in terms of interest, followed by the Schools file, which seems to be used less because students assume that colleges are going to offer all these courses anyway.

Interest and concern about the future has made EUREKA less of a diversion and has stimulated a more serious approach to its use. There also seems to be a turnaround in the educational climate in the last few years with students exhibiting less negative attitudes towards school. EUREKA is often the catalyst that shows them some future options they might not have considered previously.

Economic Difficulties

These students seem quite aware of the various options available to them: part time work and school, community colleges, financial aid, etc. They know that the lack of money can be an inhibiting factor in their plans for the future, but it doesn't seem to be seriously prohibitive. The students seem to be aware of their individual economic circumstances and are responsive to suggestions for resolving these problems.

Social Difficulties

Some of the students with a more assertive attitude manipulate QUEST to get the occupations they want. They need help in understanding that changing QUEST answers to get the desired jobs, does not assure them of actually getting that job. Some adult interaction is necessary to understand that these jobs are options, not final answers.

Some students need reassurance about handling the terminal. But, for the most part, they think the computer is a "kick" and get very turned on to using it.

The only problem with this enthusiastic approach is that they often give the computer more credence than it deserves. They see computer printouts as the "gospel" and accept the information without examining it critically.

A contrast to Berkeley High School is Woodrow Wilson High School in San Francisco. All of the students there are considered disadvantaged according to Judy Sokol, EDP Resource Center Coordinator. (EDP stands for Education to Develop Performance and much use is made of computers as teaching aids and job training tools.)

Judy's comments on the use of EUREKA with her students reflects the low level of academic performance and are therefore quite different, in many ways, from Bob Tryon's observations.

Academic Difficulties

To begin with, it is Judy's opinion that the language of EUREKA is generally too sophisticated and the reading level too advanced for her students and that, consequently, they need step-by-step assistance. They need constant direction when they face choices about what to do next. They erroneously consider the text message about using "change" to be a command rather than a suggestion, and they do it as if they have been commanded. When the program instructs them in the procedure to follow for "change," they don't know what to do without help. After using the "Why Not" feature once, they don't understand that they can use it again and again.

Although the occupational descriptions seem suitable for them, some of the QUEST lists are too long, and they become overwhelmed by the volume of information.

Cultural Difficulties

The information about occupations and postsecondary education stimulates bilingual students to consider new options. EUREKA exposes many of them to possibilities they have never considered previously.

Some are unrealistic about how their skill levels relate to an occupation, and they need some counseling to see the discrepancies and to find out what, if anything, can be done about them.

Economic Difficulties

EUREKA does not appear to build false hopes. Generally, students start with a realistic economic outlook and are interested in occupations they already know something about. Apparently they feel safe starting with familiar occupations first. Certain unskilled or blue collar jobs are given added value because they're described in EUREKA.

In an effort to get students to consider exploring occupations that are more demanding, Judy and her staff ask whether there is a job the students would like to know about, as opposed to asking them what they would like to do. The latter query often discourages students from exploring their options because they respond with answers based on their limited frame of reference.

Social Differences

In order for disadvantaged students to feel successful with EUREKA, the experience has to be structured. A safe place and security need to be provided as well, so students will not feel threatened and will be assured that they won't fail. If their initial experience with EUREKA is successful, they come back and do it again on their own.

Most of them are rather excited about the computer and using the terminal. They see the computer as "personalized," something they can control. Although the fear of failing makes some students wary of anything new, they can function with considerable ease and enthusiasm once they have received step-by-step instructions for using the equipment. As long as someone is nearby who can help them should they run into problems, they seem to like the system as a resource tool, one that is individualized and saves them the arduous task of having to research the information on their own.

The last high school I visited was Ells High School in Richmond. I interviewed Sally Terrill, the Work Experience secretary who oversees the computer terminal used for EUREKA.

Academic Difficulties

Sally believes that disadvantaged students at Ells can cope with the vocabulary of EUREKA. The problem arises over the amount of words. Students get tired and frustrated at the task of reading a lot, but they seem to understand what they read. Some are overwhelmed and complain about too much information that they don't expect. This is only true for the occupational descriptions. They ask, "Do I have to read all that to find out about a job!" The other files don't seem to present this problem.

Sally's method of dealing with this student frustration is to limit their time at the terminal. She lets them access only a small amount of information at one time.

Although they have little or no problem with instructions as to the use of the terminal, they do need extra help at first with some of the program instructions.

Cultural Difficulties

There is little interest in the school information because many of these students are not planning to go to college. They are mainly interested in jobs, especially those they can get right after high school with no further educational requirements.

Those who are planning some postsecondary job training are orienting themselves towards the skilled trades and seek information on trade schools and apprenticeship programs.

Students who are considering college want to know which school offers which particular programs or classes. They become impatient with the long school list and would do better if they could access a particular school and then ask for one specific program of study.

Economic Difficulties

Most disadvantaged students are candid about their families' economic problems. They sometimes react to the costs of post-secondary education with a pessimistc shrug, "Oh, forget it!". At this point they need a sympathetic adult to encourage them with suggestions.

Although disadvantaged students do have lower expectations, these expectations are entirely relative because being a secretary or mechanic may be a considerable achievement to them.

Their career goals tend to be based upon a realistic appraisal of their basic skills as well as on economic constraints.

They also seem to hold a realistic view of the current job market. They seem to know about the glut of professionals looking for limited job openings, and they feel they themselves will be more employable with a skill or trade.

In their search for occupational information, they find most beneficial the QUEST list and the "outlook" section of the occupational descriptions.

Students find the list of occupations exciting. Its personalized nature and its variety of possibilities opens a new world of work to young adults who have had little or no idea about future employment choices.

The outlook is important to them because they are encouraged by jobs that have openings. If the employment openings are limited in an occupation, they understand they will have to compete and be the best if they are determined to enter that field. Unfortunately, this may discourage a student from even trying as there is less willingness and ability to take a risk. Here, again, the supportive adult may be able to offer some encouragement to a particular student who conceivably could succeed with the necessary help.

Social Difficulties

Students like working at the computer terminal. They especially enjoy the interactive aspect. They may have anxieties at first about their lack of typing skills but with reassurance that one finger typing is permissable and will work, they punch keyboard in earnest.

Most are able to work independently although some don't want to. They are reassured knowing an adult is nearby to help.

When something unexpected occurs, they seem to take it with a sense of humor and are curious rather than frustrated. They are, in fact, more tolerant of the unexpected from a machine than they would be from a person.

The last two people I interviewed were Chris Hadley, counselor at Laney College, and Wayne Daniels, counselor at Contra Costa College. Due to scheduling problems, both had to be telephone interviews and therefore the comments were much briefer.

They both were of the opinion that their disadvantaged community college students have no major problems with EUREKA. Wayne felt that Contra Costa students do need a certain amount of help in getting started and in interpreting the printout; preferably this should one-to-one assistance. Without this help, they often run into the problem of a QUEST list that is either too long or too short. Students at Contra Costa College are scheduled in advance for ½ hour sessions at the terminal. At that time, they can get help in answering the QUEST items.

Chris Hadley felt that Laney's disadvantaged students often show more enthusiasm and have few complaints than the brighter students.

--RECOMMENDATIONS--

Throughout the interviews, the various individuals made recommendations for improving the system for the use of disadvantaged students. I should like to include these suggestions as I feel they are uniformly thoughtful and well considered.

Donata Hubert and Brad Warren:

1. Every classroom teacher using EUREKA should have some in-service training.

2. Students need an orientation that would give them an understanding of the rationale behind the system. They should become aware of both the individual steps in the system and how the steps are integrated into the whole.

3. Instructions should be printed at the beginning of the User Handbook instead of at the end, so students would have to notice them before starting QUEST.

4. More students should be trained as peer tutors to help others. Peer tutors are less threatening to disadvantaged youngsters than adults and can still give them the one-to-one attention they need.

5. The "Help" and "Info" text messages should be rewritten with more explicit instructions on how to access the EUREKA files. Disadvantaged students invariably have to ask for help because of their inability to understand the procedures outlined in "Help" and "Info."

Bob Tryon:

1. Students frequently have difficulty matching the occupation with its corresponding program of study. Perhaps the handbook could be changed so that each program of study and training includes a list of occupations which fall within that particular program.

2. Some poor readers are going to continue to have problems with the printouts. Because writing to the level of these students would make the program less relevant to all other users, the need for individual attention through the use of aides, tutors, paraprofessionals, etc. should always be considered.

Judy Sokol:

1. Rather than starting with the question, "How do you want to start?" it might be better to begin with a simple statement of what to do, "For Questionnaire, type QUEST. For Job Information and Schools, type INFO." The question approach seems to confuse students because they are asked to make a choice and be decisive whereas a statement is reassuring and unambivalent.

2. Some of the instructions are a little difficult to follow. Perhaps they could be reworded.

3. The spacing of words at the beginning of the program could be improved, especially the instructions at the beginning. They appear jammed together and are difficult to separate out for easy reading.

4. There should be a message that tells users they may use the "Why Not" feature more than once. For example, after using "Why Not" the first time, a prompt could appear which asks, "Is there another occupation that didn't show up on your list?" If the student answers "yes," he or she would be instructed to ask "Why Not" again. If the student answers "No," he or she would get the prompt for using "Change" at that point.

--CONCLUSION--

EUREKA is as valuable a resource for disadvantaged students who are planning their futures as it is for other students. Even so, disadvantaged students using EUREKA have special needs which must be considered carefully if EUREKA is to be of much help to them. This report has identified some of those needs, most of which can be met at the implementing sties by providing additional assistance to disadvantaged students before, during, and after the computer connection with EUREKA. Those other suggestions relating to the EUREKA software will be reviewed as the system develops further and, where possible, will be incorporated into the total system.

Submitted by Sandy Neiman

EUREKA
The California Career Information System

PRESS KIT

EUREKA

Fact Sheet

What is EUREKA?

EUREKA is a user-oriented computerized library which contains information on 260 occupations, 130 study programs, and 210 postsecondary schools in California.

How does EUREKA work?

EUREKA's information development staff research data already gathered by various public and private agencies. They then interpret the data and write succinct information statements in understandable language. Using computer terminals, data entry operators enter this information into one central computer on a daily basis. Three times a year a tape from this machine is distributed to all computer sites which run EUREKA. This new tape, which reflects all the changes and updates made since the previous tape, provides EUREKA users throughout California with the latest career information.

To get at this information, users first look over a user handbook and decide just what they want from EUREKA. Then, using a computer terminal by themselves, they tell the computer what they're looking for, and that is printed out automatically on the terminal.

Is EUREKA a mechanical counselor?

No. Although EUREKA is designed for independent use, success of the system is enhanced when counselors prepare the user for the computer experience and after that, when counselors assist in interpreting EUREKA information, clarifying specific needs, and planning future steps.

What hardware and software are needed for EUREKA?

Hardware - To run EUREKA, one needs a computer terminal, a computer connection, and computer storage space.

Software - Updated computer programs, user handbooks, implementation handbooks, and inservice training.

What does EUREKA cost?

Costs for EUREKA software are determined by the number of computer terminals. Most schools use one terminal for EUREKA and pay $1500 per year. This figure includes all the software listed above.

Hardware costs vary appreciably depending upon factors such as whether computer time is already available, what type of computer terminal is desired, what communications equipment is required, and whether the hardware is purchased or rented. An average cost for renting all the necessary hardware is $3500 per year.

Who is behind EUREKA?

Behind EUREKA is a non-profit cooperative group of users (school districts, junior colleges, and social agencies) who want to help improve the educational selection process for people who are considering their career options.

Why is EUREKA unique?

Two aspects of EUREKA make it unique compared to other ways of obtaining career information. The first is its information content and the second is its computer-based delivery.

The information available in EUREKA is extensive and varied and is developed specifically for California. (EUREKA even goes one step beyond localizing the information to California, something no other computer-delivered system does; it localizes information to the area within the state in which the user is interested.) EUREKA's information is organized into these components which are here designated by their computer commands:

DES: Descriptions of occupations including job duties, working conditions, hiring requirements, wages, and employment outlook.

BIB: A short bibliography for each occupation.

PREP: An explanation of ways to prepare for an occupation, including necessary skills, licensing and training requirements, and tips for employability.

VISIT: Names of people to contact who are actively engaged in each occupation.

PROG: Descriptions of programs of study and training and a list of the institutions where the programs are offered in California.

SCH: Non-academic information about postsecondary schools, including enrollment, costs, housing, and services.

In addition, EUREKA has a component called QUEST, which is sometimes called an access strategy because it provides the user with direction for gaining access to the occupational information.

QUEST: A 21-item questionnaire which asks the user to evaluate his or her temperaments, abilities, location and earnings preferences, and educational plans. From the user's answers, QUEST produces a list of occupations which the user can explore further by going to the occupational descriptions file.

The second unique aspect of EUREKA is that all of this information is stored in a computer and delivered by the computer at the user's request. Such a system offers some distinct advantages for career counseling:

It can store vast quantities of information;

It can be updated easily with newly revised facts and figures;

It offers fingertip access to various kinds of information with unprecedented speed, ease, and accuracy;

It can patiently and accurately repeat the same process innumerable times;

It can simulate a conversation to assist the user through the system;

It can serve one user or many virtually simultaneously;

It prints a copy for future reference of information relevant to each user; and

It is an enjoyable use of modern technology which stimulates further career exploration.

Because EUREKA's computerized delivery has an interactive capability, students and clients can use the system themselves without having to rely on an intermediary or having to wait weeks for the return of a computer printout.

ON YOUR LETTERHEAD!

TO: City Editor for newspapers

Assignment Editor for radio and television stations

FROM: Name of local contact person

Title

Local telephone number, including area code

NEWS AND PHOTO COVERAGE REQUEST

WHAT: EUREKA - a personalized computer system programmed to help users decide upon their future occupation and to find the training necessary to enter that occupational field.

WHEN: When it will be demonstrated

WHERE: Where it will be demonstrated

WHO: Students (or clients), counselors, and the EUREKA computer

WHY: To see how EUREKA can assist users and their counselors; to see how a computer can converse with those in need of career information.

PLEASE NOTE:

Add localized items here - names which might be drawing cards, etc.

SUGGESTED PRESS RELEASE - ON YOUR LETTERHEAD

TO: EDITOR
NAME OF PAPER

FOR: IMMEDIATE RELEASE

FROM: NAME OF PERSON TO BE CONTACTED
TO ANSWER QUESTIONS

TELEPHONE: (Area Code) 123-4567

"What do you want to be when you grow up?"

This question has been asked of all of us, but it is especially difficult to answer today with so many occupations to choose from, some of which weren't even around five years ago.

Thanks to EUREKA, The California Career Information System, Californians now have help in answering this question.

EUREKA is a library of information on occupations, study programs, and postsecondary schools, all of which is stored in a computer. It is current and accurate and pertains specifically to California.

This information is also easy to get to. Students actually use a computer themselves to get the information, and the computer responds in a conversational way with accurate occupational descriptions, including the current salary ranges and the employment outlook. In addition, it tells them such things as how to prepare for an occupation, what license is required, and where to go for training.

EUREKA is used throughout California by public and private secondary schools, community colleges, colleges, universities, CETA Programs, Regional Occupational Programs, and social agencies. And now it is available at _ _ _ _ _ _ _ _ _ _ _ _ _ _ _.

(Insert local references where desired.)

SUGGESTED PRESS RELEASE - ON YOUR LETTERHEAD

TO: EDITOR
NAME OF PAPER

FOR: IMMEDIATE RELEASE

FROM: NAME OF PERSON TO BE CONTACTED
TO ANSWER QUESTIONS

TELEPHONE: (AREA CODE) 123-4567

EUREKA, a unique new counseling aid, is now being used at (Name of school, agency or community).

EUREKA is a computerized library containing accurate, up-to-date information on 260 occupations, 130 study programs, and more than 210 postsecondary schools in California.

Students use a computer terminal themselves to get the information. Typing "Hello" and then one's name begins the very personalized use of a very sophisticated system.

Students may go directly to any information in the system, or they may answer 21 questions about themselves, and the computer will print a list of occupations which match their answers.

The occupational information they can get is localized to areas within California and includes wages, working conditions, hiring and licensing requirements, job outlook, and ways to prepare for employment. There's information in the system on study programs, training programs, and schools, too. This includes admission requirements, costs, courses offered, services available, and degrees granted.

After using EUREKA at the computer terminal, students take a computer printout with them which is sometimes fifteen or twenty feet long. This personalized record can become the focus of a counseling session or a discussion of career choices with parents.

EUREKA is exciting and fun for anyone to use, and it is also reliable as an information source. Its information is constantly being updated so students can be assured that they are well informed when making important career decisions.

(Insert local references where desired.)

EUREKA

The California Career Information System

PROSPECTS

Volume I, number 2, Winter 1979 EUREKA The California Career Information System

EUREKA at Richmond Manpower

Richmond Manpower is a federally funded CETA agency serving Richmond residents. Referrals are made by the Employment Development Department and a variety of social agencies, including Vocational Rehabilitation and the Senior Citizens Center. A qualified staff, provided under contract with the Employment Development Department, trains those in need of skills development and finds employment for the "job ready."

Each client is evaluated and an individualized vocational training program is set up. Two group evaluation techniques are used: The Basic Occupational Literacy Test (BOLT) designed to measure achievement in reading and arithmetic, and the Singer Picture Interest Screening, which measures the degree of interest in 45 primary occupations by viewing 272 pictures of persons employed in those occupations. After evaluation, a recommendation is made, based on the client's needs and interests. If the BOLT scores show a need for remediation, the client undertakes a Basic Education Program at a nearby school for a twelve-week period.

Work stations are chosen for exploration based on the results of the Singer screening. The client spends several hours at a simulated work station, ascertaining his or her aptitudes and continuing interest by "hands-on" performance of tasks. Some of the occupations represented are welding, small engine repair, bench assembly, masonry, carpentry, refrigeration, plumbing, drafting, office work, sales, and licensed vocational nursing. There are sixteen stations in all. This October, ninety-nine people used the various stations. It should also be noted that Spanish language tapes are available.

Another very important and much-used tool for evaluating occupational interests is EUREKA. Clients are encouraged to use the system to explore occupational interests or, through the use of Quest, to discover new job options.

Singer and EUREKA work well together. Often, the client goes through the "hands-on" experience and is

(continued on page 3)

CETA, LEAs, and a Career Information System as Partners

We would like to share the contents of an article appearing in a recent newsletter for the Colorado Career Information System (COCIS), a fellow member of the national Association of Computer-based Systems for Career Information. Jack Winchester, the Colorado Springs CETA Director, described the success CETA had experienced by joining forces with school districts and COCIS.

The Department of Labor encourages CETA to provide youth with access to career and occupational information as well as to strengthen links with Local Educational Agencies (LEAs). As a result, school districts were approached with this offer: CETA would provide the COCIS program, including training, three portable terminals to be rotated among the high schools in each district, and service and monitoring of the terminals and program. The LEAs would provide counseling space, phones, counselor-student liaison, and student aides who qualified for the in-school work experience program. All fifteen school districts accepted and entered into a six-month nonfinancial agreement.

(continued on page 2)

Consortium Meeting

Save May 4, 1979 for EUREKA's second annual Consortium meeting. This year it will be held at the Ramada Inn in Culver City.

Those interested in computer-delivered career information are encouraged to attend. There will be workshops for those who are considering the adoption of the system, have recently become users, and have long been users. In addition, there will be a Consortium business meeting, election of new members to the Board of Directors, introductions of staff members, and a palatable luncheon.

Plan to attend!

PDP-11 Version Operational □ After more than one year of setbacks and investments exceeding $20,000, EUREKA is now available in the most compact, efficient, and speedy version yet developed. It runs on the smallest of the Digital Equipment Corporation minicomputers, the PDP-11, which is popularly used for instructional purposes at University of California and California State University and College campuses, as well as at community colleges and high schools.

Funding Sources for EUREKA Users

□ One of the chief problems Eureka users have is financing the hardware/software, telephone, and supply costs necessary for implementation. EUREKA users are utilizing many different funding methods to take care of these costs. Here is a partial list of funding sources that people interested in implementing or continuing the use of EUREKA may wish to investigate:

- *Title 1A, Higher Education Act of 1965*, administered by the California Postsecondary Education Commission. Contact Ms. Linda Barton White, (916) 322-8034, CPEC, 1020 12th St., Sacramento 95814. Projects must meet state plan guidelines and be submitted by a two- or four-year college. Minigrants of up to $5,000 are also available. One-third matching funds (or in-kind contributions) are required.
- *Title 4, HEA*, administered by CPEC. Same address as above. Equipment grant program, 50 percent matching funds required. Can be used to buy computer terminals.
- *CETA, Youth Employment and Training Program.* Has both an in-school and out-of-school component for youth aged sixteen to twenty-one (some restrictions). Contact local prime sponsor (or county or city Manpower office).
- *Vocational Education Act, Subpart 3, Vocational Counseling and Guidance.* Some districts and/or colleges have already applied for and received funds under this program. Contact the person in your district who administers the VEA funds. Also inquire about other VEA programs.
- *Business, professional, and labor associations*, for example, the Rotary Club. Some of these groups can be approached for funding topurchase a computer terminal or to pay the EUREKA lease fee.
- *Computer center possibilities.* Some EUREKA computer centers are allowing outside users to access the EUREKA program for a fee that usually averages $150 a month per computer port.
- *Other sources of revenue:* student/client fees, funding from associated students' organizations, career planning class fees, Elementary and Secondary Education Act (ESEA) funds, and two or more schools sharing the cost of a portable terminal.

(*CETA, LEAs . . . continued from page 1*)

At the end of six months, the following had been accomplished: a new youth program had been developed, the Department of Labor request had been fulfilled, linkage and credibility with the LEAs had been strengthened, there were requests from other community-based organizations for similar services, minimal CETA staff time had been necessary because responsibilities had been decentralized to the schools, new in-school job slots for youth had been created, and a peer counseling program had been initiated. For the LEAs, career information programs were expanded; an opportunity was provided, with limited financial commitment, to experiment with and prove the value of COCIS; and counselors found an excellent counseling vehicle for students who had previously been uncommunicative.

Most significantly, however, students had found an easy, quick, and enjoyable means of personally obtaining accurate and extensive career information. All participating school districts intend to enter into further nonfinancial agreements.

EUREKA can help to accomplish the same results in California.

Computer Centers Provide EUREKA

□ Lack of adequate computer facilities need not prevent an agency from being served by EUREKA. There are computer centers throughout the state that can provide computer time on a fee basis to outside users. There are ten Regional Computer Centers for Educational Data Processing. These centers, authorized by state legislation in 1967, are headquartered at county offices of education and offer a wide variety of administrative and instructional computer services for schools and public agencies.

All the centers have large time-sharing computers for which EUREKA has compatible software. They can accommodate large numbers of users, no matter where they are located. Sacramento, for example, provides EUREKA to Bishop High School and San Mateo supplies Lawrence Livermore Labs. Four of these centers currently provide EUREKA on a prime vendor basis, wherein agencies make a single contract with the center for both computer services and EUREKA software. These centers are: The Independent Data Processing Consortium (IDPC) in Sacramento; and the San Mateo, Fresno, and San Diego County Offices of Education.

For more information about these centers, contact Leo Day in Sacramento at (916) 362-0633; Al Grossman in San Mateo at (415) 364-5600, extension 2552; Ralph Riche in Fresno at (209) 488-3302; or Ralph Cook in San Diego at (714) 292-3539.

In addition to the county centers, several universities and colleges in the Los Angeles area and the San Francisco Bay Area provide EUREKA on a fee basis to outside users. For more information, call Leigh Robinson at (415) 237-8384.

Carol Johnston discusses VISIT with a resource person.

Training and Publicity Aids □ EUREKA's first Implementation Manual for counselors and career aides is now available! It describes the entire system, component by component, and provides hints on its use. One of these manuals is free of charge through User Services for every terminal used to access the system.

In order to make potential users aware that EUREKA is ready and waiting for them, we also have a set of five posters to attract their attention.

Especially important, however, is the User Services staff, who will provide training to anyone, anywhere, using the system.

Universities Test EUREKA □ The career planning and counseling centers of four-year colleges are responsible for assisting students to make choices about professional training, careers, and employment offers. These choices involve not only large investments of time and money, but also have major consequences in students' subsequent life patterns. For this reason, these centers have a great need for accurate and detailed information about the content, necessary preparation, and outlook for all relevant career fields.

Three such institutions in California are currently using the EUREKA system, and others are planning to do so when problems of funding or computer access are solved. UC Berkeley, long noted for its counseling and career planning programs and its occupational information library, was the first University of California campus to adopt EUREKA. California State University at Northridge became the first member of the CSUC system to adopt EUREKA. At Northridge, which has an enrollment of 27,000, EUREKA can be accessed by terminals in the Counseling Center, the Career Planning and Placement Center, and the Special Projects Educational Opportunity Program office.

In October, San Francisco State University joined the system. Costs at San Francisco State are currently covered by the student body fund on an experimental basis. Student response is reportedly enthusiastic, with the single terminal available at the Career Center booked a week in advance. An additional terminal will become available in the spring, permitting the system to be used with career planning classes.

VISIT File Provides Career Learning Experiences □ Do you know someone who is considering becoming an Air Traffic Controller and would welcome the opportunity to see what it's like directing planes from the control tower? What about discussing the challenges of being a female lineworker who climbs telephone poles (Construction Splicing Technician)?

These are just two of the 100 occupations represented by resource people in EUREKA's VISIT File. Through the use of the VISIT File, visits are made to a place of employment on a one-to-one basis, after the student has initiated the contact. The length of time spent may vary from a thirty-minute discussion to an all-day observation of the person in the work situation.

Over 160 resource people are listed in the VISIT File (30 percent are women and this percentage is growing). Most resource people work in Contra Costa County. To date recruitment outside the county has occurred only when a local representative for an occupation cannot be found.

Community members have been helpful in locating those in uncommon occupations. Our VISIT File Coordinator, Carol Johnston, has had excellent responses from chapters of the Rotary Club and the Business and Professional Women's Club. The continuing search for resource people is an enjoyable task, partly due to the support of such organizations.

Other areas in the state have expressed an interest in developing their own VISIT Files. Soon we will assist Southern California in setting up a file. Should you want to start a VISIT File for your region, please contact Carol Johnston at (415) 827-9977 for details.

(. . . *Richmond Manpower, continued from page 1*)

then motivated to find out more about that occupation through EUREKA. Or, conversely, after going through Quest, obtaining a job list, and accessing related information, the client may then want to experience the "hands-on" situation.

Richmond Manpower can justifiably be proud of being the only Employment Development Department agency in the state that has all of these assessment tools in one place.

The final step in the program is a staff recommendation of a Vocational Plan. Along with special classes for those needing remedial help in reading and math, the client can also be trained for "job demand" occupations at several sites, which Richmond Manpower "buys into" by purchasing job slots for clients. These exist at East Bay Skills Center and Litton and Poly Priest Business Colleges. Clients are paid $2.65 an hour while in training and remain for a specified period of time. Every effort is then made to help them locate jobs through the use of Job Developers.

This highly innovative program is under the direction of Robert Gow, who is committed to providing the best services possible for Richmond residents. EUREKA is proud to be an integral part of this exemplary agency.

Interviews with EUREKA Users

Robert Allen, a ninth-grade student at Richmond High School, found out about EUREKA while he was working in the Learning Center. He had never thought about occupations before and EUREKA seemed like a good way to start. He had only a few minutes between classes, so he only asked for a few descriptions and programs of study the first time. Robert later returned several times to use Quest and obtain more information. He enjoyed working by himself, switching between Quest and descriptions. He carefully evaluated the descriptions and programs of study, looking for an occupation in which he could succeed and that he could enjoy.

Maureen Viera, a student at Diablo Valley College, wanted to identify career goals and plan her education. Her counselor suggested a battery of tests and EUREKA. A bright, energetic woman, Maureen quickly read the EUREKA handbook and responded to Quest. Looking at her list of occupations, she was impressed by the variety of directions in which her interests pointed. After requesting several occupational descriptions, her choices began to narrow. Cabinet Maker did not seem to offer enough variety, but crafts and recreation were interesting. As Maureen began to focus on recreation, her counselor helped her to integrate the vast amount of information she had received. The counselor suggested combinations of interests that Maureen hadn't considered, helping her to think of ways recreation could be developed into new and exciting jobs, especially suited to her.

Maureen later returned to EUREKA to change her Quest answers in order to get a new list. It was less broad, but more accurate. She then compared three nearby schools for cost and size, selecting the one that best fit her needs. Maureen was thankful that EUREKA had been available to her. Instead of a lengthy search through books and pamphlets, most of the information she needed was all in one place. "And," she said, "it was fun to use."

Volunteers Assist EUREKA Users

Many of the secondary school career centers using EUREKA have recruited volunteers to assist in day-to-day operations. They not only help the students with this investigative experience but often serve as the center's mainstays.

At Gunn High School in Palo Alto, Evelyn Donaldson, a counselor, explained that the Life Styles Center would be unable to function without the help of volunteer parents. Volunteers work a half day each week, and are scheduled so that someone is always at the center. The volunteers say that they particularly like working at Gunn's Life Styles Center because of the extensive information available and the constant student contact.

The San Francisco Unified School District has a volunteer program called VICCI, Volunteers in Career and College Information. A director and staff equip VICCI offices at each school with career and college information, then train volunteers in the use of these materials. Although most students use EUREKA in conjunction with a class project, the volunteers provide personal assistance in interpreting information, clarifying the decision process, and locating additional information.

Redwood Continuation School, San Francisco State University, and Diablo Valley College have found that student workers are effective in helping other students use EUREKA. Mills High School in San Mateo plans to use student volunteers from a communications class.

(Interviews . . ., continued from adjacent column)

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PROSPECTS

Volume 1, number 3, Spring 1979 EUREKA The California Career Information System

May 4th Conference at Sheraton-Universal

Although the site for EUREKA's upcoming conference and Consortium meeting has been changed to the Sheraton-Universal Hotel, located next to Universal Studios in Los Angeles, the date is still set for May 4th.

Those interested in computer-delivered career information are encouraged to attend. There will be workshops for new users, old users, would-be users, and the curious.

The day's activities will begin with registration, coffee, and sweet rolls at 8:00, followed by the keynote address at 9:00 and two hour-long morning workshops. Lunch, the Consortium business meeting, and election of new Board members will occur from noon to 1:30, after which there will be two more hour-long workshops. For those who wish to stay, the Board meeting will begin at 3:30 and will last about an hour.

All of EUREKA's staff and Board members will be present to answer your questions, hear your suggestions, and discuss future plans. Because EUREKA is a cooperative of users, this conference can be more meaningful than most, since it will provide an opportunity to participate in the business of running the system.

Registration, including victuals, is only $15. Registration information should be reaching you soon. If it doesn't call User Services at (415) 237-8384. See you there!

ROC/P and Apprenticeship Programs

Information on occupational training programs offered by California's sixty-two Regional Occupation Center/Programs (ROC/P) is now available to EUREKA users who access the PROGRAM file. Courses currently authorized are included in the EUREKA PROGRAM file school list, following the community college section. Each ROC/P has a five-digit school number. Typing SCH and these five digits will access information about the location of the ROC/P.

Users who access PREP files for apprenticeable occupations now receive information on how and where to apply for apprenticeship training in their area.

Board Adopts New Fee Schedule

At its last meeting, EUREKA's Board of Directors adopted a new fee schedule based on the number of terminals used primarily for EUREKA rather than based on the number of estimated users.

Under the new schedule, one terminal costs $1,500 for twelve months; two terminals, $2,750; three terminals, $3,750; four terminals, $4,750; five terminals, $5,750; and each additional terminal, $700. Sites that contract as a group for EUREKA's services may take advantage of the better rates for larger users. Smaller sites—those with fewer than 500 students or clients—may take advantage of a special $1,000 minimum rate.

Sites that are equipped with their own computers pay $250 a year for computer program maintenance. Beginning July 1, 1979, however, new computer sites will have an installation fee of $1,000, which includes the first year's maintenance. Computer sites that install EUREKA before July 1st will pay only $250 for the first year's maintenance, thereby saving $750.

In adopting this fee schedule, EUREKA's Board recognized that no fee schedule would be fair to every possible user. Because EUREKA must support itself through these user-generated fees, the Board tried to devise an equitable schedule that would cover EUREKA's expected expenses in serving its various sites. These fees are reviewed annually by a standing Board committee comprised of a cross-section of users.

Community Advisement Centers

A current Title I objective is to implement pilot programs that provide comprehensive educational and career advisement services. The community service goal is to provide these services to older adults, women, ethnic minorities, the physically disabled, and the incarcerated.

Two Community Advisement Centers have been created in the state to serve as "one-stop" community based programs that bring accurate, timely, and comprehensive information on the opportunities available to this large

(continued on page 3)

They've found it! The EUREKA staff are—Top row: Jim Stubblefield, Ellinor Wheeler, Peter Wehausen, Marilyn Maze, Sandy Baldocchi, and Carol Johnston; Middle row: Ann Dragavon, Vickie Archuleta, Don Mayall, Sandy Neiman, Dorothy Sonneborn, and Dorthy Rueter; Bottom row: Jo Ann Holley, Leigh Robinson, and Margaret Miglia.

Counseling the Disabled □ Under a VEA grant, EUREKA has studied the types of labor market information needed for giving career counseling to disabled youths and adults. Information was obtained through interviews with rehabilitation counselors in various settings.

The study revealed that these counselors need the same kind of information now available in EUREKA files, except in considerably greater detail. For example, a job description should have sufficient detail to allow both client and counselor to visualize the client performing or attempting to perform the work.

Other helpful information, based on material that has been developed in Dictionary of Occupational Titles (DOT) studies, includes the availability of public transportation and the suitability of the building design for use by disabled workers.

The file format has been redesigned to accommodate these suggested changes. All new descriptions and updates will follow the new format, and the requested material will be included to the extent that funding for the additional compilation and research is available.

Resources at Lawrence Hall of Science □ The Lawrence Hall of Science at UC Berkeley, a prime mover in educational computer circles, is now making EUREKA available to schools and centers throughout Northern California. At present, LHS provides access to EUREKA for outside users through the UC campus PDP-11 UNIX system. EUREKA is also being implemented on its Data General Eclipse computers, with completion planned for early this summer. Schools will then be able to use the full educational resources on the Hall's machines, at no additional cost.

The Hall offers a full roster of classes, timesharing computer access, public computer programs, workshops, teacher training, microcomputing, and more, taught through the Bay Area and beyond. LHS pioneered computing at schools as early as 1970. It has an established history of professional user support and technical expertise.

With plenty of computer power available and personnel experienced in educational support, the Hall is a major resource for EUREKA users. For more information about Lawrence Hall of Science programs and computer access, contact Lee Berman at (415) 642-3167.

EUREKA — The Main Course □

STEP 1: Start with a group of Bay Area Computer Educators who are aware of a craving among secondary and postsecondary institutions and public agencies for labor market and educational sustenance that is up to date and localized for California consumers.

STEP 2: Sample available menus to see if respective dishes satisfy the appetites of people involved with career-making decisions.

STEP 3: Select a dish that has been consumed and digested with gusto by users at many educational sites and by many public agencies.

STEP 4: Take a full measure of the following ingredients from the selected recipe—Occupations, Preparation, Bibliography, Programs of Study and Training, and Schools.

STEP 5: Stir in generous portions of the localized seasoning described below to create a dish that will be palatable to Californians.

- *For Occupations*—aptitudes, work setting, hiring practices, current employment wages and outlook
- *For Preparation*—skills needed, licensing information, necessary prepartion tips
- *For Programs of Study and Training*—coursework, training, licensing requirements, degrees
- *For Bibliography*—related publications, California and DOL resources and materials
- *For Schools*—California Community Colleges, California State University and Colleges, University of California, Selected Private and Out-of-State Schools

The above can be prepared initially by volunteer help; however, shop for funding to maintain a fulltime crew who will continue to enrich and refine the dish.

STEP 6: Serve potential new consumers samples of the tempting creation. Explain that the various ingredients can be served à la carte or devoured all at one sitting. (One ingredient, "Quest," can be an aperitif.)

STEP 7: Continue to tantalize by adding delectable new ingredients to the old.

A New Combination □

The Career Planning Inventory (CPI) has been adapted to facilitate its use with EUREKA. A test of the adapted system is now being conducted by the San Mateo and Santa Clara County Offices of Education. Widespread use of the combined system is planned for the fall. Developmental work was done by the San Mateo County ROP in cooperation with EUREKA.

Board Meets in LA □

January 12th was a historic occasion for EUREKA, marking the first Board meeting ever held in Southern California. Directors and users from all over the state gathered in Los Angeles at the Jewish Vocational Service for this meeting hosted by Allen Steinhaus.

In addition to hearing reports from the Treasurer, Director of Information Development, Director of User Services, and Administrative Director, the Board decided to adopt a new fee schedule (see article on page 2). It also approved the purchase of a TRS-80 microcomputer for programming a self-contained version of EUREKA. It drew lots to choose which Board members (Allen Jensen, Mary Koss, and Eugene Muscat) were to be replaced in the May elections. And it viewed the professionally prepared slide-tape show designed to explain how EUREKA works.

Besides being historic, it was a busy meeting!

The Latest Training Aid □

EUREKA has a new slide-tape show, which provides a comprehensive overview of the entire system and follows a user through the first experience with the system.

A film strip is also now in the production stage. It will explain Quest and will be aimed at the younger user who has little or no work experience. Pictures of young people at life-related tasks will be used to illustrate the twenty-one questions of Quest. The film strip will be available by September 1979.

(*Community . . . Centers, continued from page 1*)
population of adult, nontraditional learners. One center is rural and is funded by Monterey Peninsula College on behalf of the Higher Education Consortium of the Monterey Peninsula. The center's main office is located in downtown Monterey; satellite centers are in Hollister, King City, and Salinas, and a mobile van goes to outlying areas. The urban center model is funded by Cosumnes River College and is located in downtown Sacramento. The Monterey center is contemplating the establishment of EUREKA if problems involving computer access can be solved, and EUREKA is already being utilized at the Sacramento center.

Suzanne Nissen, the Sacramento center's coordinator, spoke with us about EUREKA's effect. Many clients are interested in educational and career options; they are unclear about which direction to pursue. EUREKA is one of the major tools that helps them to clarify their career goals. Sacramento has two terminals, one of which was recently taken to the Job Fair at Cal Expo. At the fair community college vocational education information was offered in conjunction with EUREKA. On this occasion the system was used mostly by disadvantaged youths, in an engaging and unintimidating manner, to guide them toward individualized career and educational options.

Employer Information in EUREKA

□ EUREKA users in the San Francisco Bay Area can now learn about the kinds of jobs, hiring practices, and working conditions found in local industries by accessing the EMPLOYER file. This component was developed as part of the Vocational Education Act, Subpart D grant to Diablo Valley College and the Richmond Unified School District.

Currently, this component is being tested by Bay Area users and is available for statewide demonstration. Like the VISIT file, this component permits the incorporation of the data collected by user sites: namely, profiles of individual local firms. The local data are integrated into area-wide and industrywide files, so that the user always has a comprehensive picture of the labor market. This feature is unique to the EUREKA system.

For more information or a demonstration of this component, contact Don, Ellinor, or Marilyn at (415) 237-8384.

Computerized Guidance Systems Course

□ Roger Cummings and Penny Warren, counseling instructors at San Francisco State University, are teaching a graduate seminar in computer-assisted career guidance systems. This year's students are studying the history, content, and current uses of EUREKA, GIS, and DISCOVER. They will evaluate each system and observe the funding process and installation of a system on a college campus. As a final project, the class will write a mock grant proposal to support such a system.

The course structure is based on the Life/Work Planning Process developed by Richard Bolles, noted author of *What Color Is Your Parachute?* The students will experience this process as they investigate the various systems. They will also identify their transferable skills, people environments, working conditions, goals, salary requirements, and geographical preferences. EUREKA will be used to identify the occupations that correspond to these preferences. VISIT and EMPLOY are useful for the next

New Occupations Added to System

□ The EUREKA Staff is researching eighty occupations for possible inclusion in the system's information files. These additions, after some anticipated deletions, will bring the total number of occupation descriptions to about 330 by July 1979.

The addition of these new titles reflects, in part, an expanded set of criteria to be used in the system. Formerly, EUREKA files were limited to occupations found in California labor markets. Our new criteria include occupations in which there is a significant user interest and a national labor market. These descriptions will also provide national labor market data. Other criteria are that an entry job must exist for a qualified applicant and that there is a recognized preparation path to the occupation.

Many of the EUREKA descriptions encompass more than one Dictionary of Occupational Titles (DOT) category. This occurs when there are several component or specialty options within an occupation. With the additional occupations, there will be over 1,000 DOT categories included in our files.

EUREKA coordinates its research activities and shares findings with other state Career Information Systems, resulting in a more reliable and comprehensive data base for all users.

(. . . *Course, continued from adjacent column*)

step, that of locating firms where such jobs exist. Lastly, PREP, PROG, and SCH will be used in relation to job preparation.

EUREKA is available at SFSU so that students will have ample opportunity to explore this system. GIS was explained at one meeting and several students plan to attend the SIGI Consortium meeting. For DISCOVER, they will have to rely on written material.

Next year, Penny and Roger plan to offer a senior seminar using the Life/Work Planning Process and EUREKA.

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Eureka! ARC Computer Matches You To Job

By LEE SMITH
Bee Staff Writer

IT DOESN'T WEAR TENNIS SHOES as the boy computer in Disney's movie does, but the computer at American River College seems a friendly sort. Right away, you're on a first-name basis.

"Hello, Lee, you are logged in to Eureka," it said after I had typed my name on its keyboard. It then told me, on its green and white printout sheet, that it is part of the California Career Information System and asked, "How do you want to start?"

Named, appropriately enough, "Eureka" — Greek for "I have found it" — it is an important part of the career counseling program at ARC. Although its primary purpose is to provide career information to ARC students, it is available at no cost to anyone who wants to know the current employment picture of the field they're in, or the training requirements and job potentials of other fields.

To help you get started, it rapidly types out what it has to offer — information on occupations, educational programs and schools; ways to prepare for occupations and people to contact and the job outlook in a particular field on the local, state and national level.

When I gave it the code for "journalism," it seemed almost to care as it told me that competition for jobs is keen and that openings for newspaper reporters in Sacramento are "almost non-existent."

Almost as if it knew it hadn't been exactly encouraging, it ended with, "What next? If you need help type: Help."

Had I wished to pursue the subject, I could have checked out the job situation in Los Angeles or San Francisco or tried the "other" category, which would have given me the picture on the national level and let me know the most likely cities in which to look for newspaper jobs.

Had I asked for information on training and schools, I would have received a quick printout of degree requirements and the California schools and their locations that meet those requirements. I could then have checked out each school, learning the cost of tuition and such things as availability of student housing, bus service and whether day care is available for young children.

SANDY BLACKBURN, A CAREER COUNSELOR at the center, said Eureka stems from the Independent Data Processing Center operated by the Sacramento County Office of Education. Information on a wide variety of occupations, both academic and vocational, are programmed into it. Career data, continuously updated to keep pace with current needs, quickly provide information which otherwise would require many hours of research.

Students entering college and those who wish to change majors use the computer to help them decide which career field to enter. But it is also becoming increasingly popular with women, Ms. Blackburn said, particularly "displaced homemakers" who are trying to enter the job market for the first time or re-enter it after many years of raising a family.

Also increasing are the number of women who wish to move out of traditional "women's jobs" and who contact the center for help in choosing a new career.

"We are seeing more and more women in both categories," Ms. Blackburn said.

OFTEN, THESE WOMEN HAVE LITTLE idea of what their abilities are, or what careers may be available for them. For these women, career counseling is especially important, Ms. Blackburn said.

The Career Center offers a wealth of printed information on a wide variety of occupations, she said, which enables women to match their abilities and interests to various fields of employment. For those who need extra help, the center offers special classes in re-entry and "opportunity" counseling.

Before "logging in" to Eureka, Ms. Blackburn said participants are asked to fill out a kind of "mini" aptitude test which briefly lists likes and dislikes, interests (including hobbies) and abilities. When this information is fed into the computer, it prints a list of possible occupations for which the participant may be particularly suited.

"But this list should not be taken too seriously," Ms. Blackburn emphasized. "It is intended only as a guide and doesn't mean you couldn't succeed in a career that doesn't show up on the list."

WOMEN, SHE SAID, PARTICULARLY those in the re-entry program, tend to be intimidated by a short list and to believe it means there is little if anything they can do. They also tend to give themselves low scores on the aptitude test, especially in math, which accounts in part for the shorter list of career possibilities.

"The questions concern only very minor math, such as addition, subtraction, division and multiplication. Participants rate themselves 'low, average or above average' in different categories. Women, including those who have handled the household budget for years, most often give themselves low scores in math. They tend to believe they are less suited than men to handle math problems."

Also, Ms. Blackburn said, young women, including students, still ask most often for information on the "glamour" jobs, such as modeling or being airline stewardesses, rather than careers that pay more money but require longer periods of training.

Women who have had several years of work experience, she said, usually visit the center for counseling and to obtain information on making a career change.

"THESE WOMEN," SHE SAID, "are usually trying to move out of the traditional women's jobs and into a field that offers greater opportunities and pays a higher salary."

If you'd like to have a chat with Eureka about your future in the job market, Ms. Blackburn said appointments are necessary and there is usually a three- to four-week wait. Each appointment lasts an hour, however, so information on several careers can be obtained at one sitting.

Appointments, which can be made by calling the center, 484-8105, are scheduled during each week day and on Wednesday evenings. Information on counseling classes may also be obtained by calling the center.

Persons wishing to study career fields prior to a computer appointment or counseling are free to use the center's library, Ms. Blackburn said.

Kids consult computer for career information

By Deborah Byrd Kilmer

There's a computer terminal at Pinole Valley High School that tells students where they can go.

The terminal is being used in the EUREKA program, which can give a student information on hundreds of careers he may be interested in. Job availability, starting pay, experience and education needed, working conditions and other information is stored in a PDP-11 computer at Richmond High School and printed out by Pinole's terminal at the touch of a button.

EUREKA asks 21 questions of the computer user, covering everything from estimated manual dexterity to the geographical region one prefers to work in, whether one prefers working alone or with others and what salary one would like to start earning on a job. EUREKA then prints out a list of occupations that the person's characteristics would suit him for, and tells him where the schools are that can train him for the job.

EUREKA is part of a pilot program in career education at Pinole, and about 400 students have sought its information, said counselor Charles Perrone.

The typewriter-like computer terminal prints out questions and responses on a roll of computer paper, and the user types his responses on the keyboard.

William Chan, who teachers computer programming at Pinole, said the computer is programmed to respond in a conversational style for the user's convenience. The program itself is written in BASIC computer language and stored in the computer at Richmond High.

Chan said he would like to see every student at the high school go through the EUREKA program. "Sometimes it gives youngsters who have no idea what they'd like to do some suggestions they never would have thought of," said Chan.

Chan himself used the program "as a lark," and was surprised that two occupations he might be qualified for were roofer and house painter. However, he said, those occupations fit with what he told the computer: that he didn't have a lot of manual dexterity, and that he liked working outdoors.

Counselor Perrone said he is having students go through the careers program in English classes and will have social studies classes use it in the fall. "Sometimes we miss a kid through counseling," said Perrone. "But in the classroom we have a captive audience, it's beautiful."

As part of the career education program, students learn to fill out job applications and how to conduct themselves in an interview, two practical techniques not offered in high schools until very recently.

And, since one of the quickest ways to find out what a job is like is to talk to someone who holds the job, said Perrone, another part of the program is the EUREKA visit file, a computer compilation of representatives in hundreds of jobs throughout Contra Costa County.

"It's a terrific thing," said Perrone. "If a kid is interested in engineering, he can come down here, get the phone number of a person on the list, phone right from here and make an appointment and go see the person. You can get all the explanation you want about jobs out of books or in the classroom, but to talk to the person who's actually doing the job..."

Everyone in the visit file, said Perrone, has volunteered to make time for students who are interested in the jobs they represent.

Some students have discovered, perhaps not too surprisingly, that what they like to do is program computers. The district has hired several high school student programmers to help with the large volume of computer-processed information — report cards, budgets, salaries — that it handles.

see COMPUTER, page 2

WEST COUNTY Times

Pinole, California, Wednesday, May 30, 1979

COMPUTER

continued from page 1

The increasing use of intelligent machines, especially in business, is one reason Chan thinks computers should be taken for granted more than they are.

"The computer is still a very forbidding piece of equipment," said Chan, "but it shouldn't be. There is speculation that programming will be a required course for college enrollment some day, the way algebra is now. Of course, a computer person said that, but the idea that it can be thought of shows how far we've come."

APPENDIX K

SUMMARY OF STATISTICAL DATA - June 1979

COMPUTER SITE	CONTRA COSTA COLLEGE	LOS MEDANOS COLLEGE*	OHLONE COLLEGE	DE ANZA COLLEGE	TOTAL
Dates Included	3/27 - 6/18	4/25 - 6/18	6/1 - 6/20	3/18 - 6/18	
Average Minutes	17	37	18	23	28
Times Used	192	393	58	235	878
Components:					
QUEST	112	94	22	105	333
HOW MANY	3	26	14	56	99
LIST	21	42	12	82	256
FINISH	0	1	0	5	6
WHY NOT	78	85	36	239	438
CHANGE	32	89	26	175	322
START OVER	1	1	0	1	3
BATCH	9	9	0	2	20
ATTR	2	1	0	11	14
INFO	58	134	11	67	270
DESC	355	373	98	449	1275
PREP	329	284	75	294	982
BIB	11	41	42	27	121
PROG	224	138	67	84	513
SCH	40	145	21	37	243
HELP	19	26	4	28	77
Top Ten Occupations	1416 Clerk Typist	4734 Photographers	8458 Ed. Prog.	1684 Programmer	1684 Programmer
	1684 Programmers	8186 Cosmetologist	2176 Editor	1144 Bus. Exec.	4734 Photographer
	4254 Carpenters	8162 Reg. Nurse	1684 Programmer	1424 Travel Agent	4252 Carpenter
	1642 Cashiers	7856 Flight Att.	1682 Sys. Analyst	1186 Persnl. Man.	9866 Perf. Artists
	9866 Perf. Artists	9866 Perf. Artist	1195 Public Rel.	8127 Phys. Ther.	8162 Reg. Nurse
	1686 Computer Op.	8459 Child Care	4734 Photographer	8414 Counselor	8456 K-12 Teacher
	1418 Office Clerk	4254 Carpenter	2359 Elct. Tech.	8418 Psychologist	1144 Bus. Exec.
	1614 Accountant	8456 K-12 Teacher	2174 Writer	4734 Photographer	8186 Cosmetologist
	8422 Probation Off.	6144 Truck Driver	8456 K-12 Teacher	2359 Elect. Tech.	1424 Travel Agent
	1644 Bank Teller	1412 Secretary	8418 Psychologist	9824 Radio & TV	1416 Clerk Typist
Top Five Programs	211 Data Process.	274 Flight Train.	211 Data Process.	145 Bus. Admin.	211 Data Process.
	158 Secretarial	211 Data Process.	317 Photography	211 Data Process.	145 Bus. Admin.
	288 Construction	157 Accounting	314 Music	238 Counseling	157 Accounting
	157 Accounting	145 Bus. Admin.	253 Engineering	374 Phys. Ther.	158 Secretarial
	567 Law Enforce.	523 Physics	196 Radio & TV	353 Nursing	353 Nursing
Top Five Schools	21001 U.C. Berkeley	21066 Diablo Valley	21008 U.C.S.B.	21125 S.J.S.U.	
	21041 Contra Costa	21001 U.C. Berkeley	21811 U. of Oregon	21001 U.C. Berkeley	
	21326 Cal Poly	21049 Los Medanos	21504 U.C.L.A.	21181 Stanford	N.A.
	21259 Santa Rosa	21042 U.C. Davis	21402 U.C. Davis	21309 U.C.S.C.	
	21227 S.S.C. Sonoma	21024 S.F.S.U.	21125 S.J.S.U.	21183 Santa Clara	

* The Los Medanos College computer is also used by Liberty High School and Mt. Diablo Unified School District

APPENDIX L

(T) (F)

1 a b c d e
2 a b c d e
3 a b c d e
4 a b c d e
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17 a b c d e
18 a b c d e
19 a b c d e
20 a b c d e
21 a b c d e
22 a b c d e
23 a b c d e
24 a b c d e
25 a b c d e

FEED THIS DIRECTION

EUREKA, the California Career Information System, which you are using, is in a continuous process of development. You can help us improve it by answering the following questions. Use a #2 pencil and mark your answers in the bubbles on the left. Choose only one answer for each question.

1. I learned about EUREKA from a. a career course b. teacher c. friend d. counselor e. other

2. My age is: a. 12 - 17 b. 18 - 21 c. 22 - 34 d. 35 - 50 e. over 50

3. a. I have never held a full time job.
   b. I have held a full time job but I don't have one now.
   c. I am currently working at a full time job.

4. My reason for using EUREKA is to: a. choose a career b. learn more about a career I have already choosen c. Choose a school d. learn more about a school I have choosen e. decide what to study in school

5. The total number of times I have used EUREKA is: a. 1 b. 2 c. 3 d. 4 e. 5 or more

6. The number of minutes I spent in preparation to use EUREKA: a. none b. 5 c. 15 d. 30 e more

7. The number of minutes I spent at the computer this time is: a. 15 b. 30 c. 45 d. 60 e. more

8. The instructions in the handbook were: a. very clear b. clear c. not too clear d. confusing

9. The computer responses were: a. very clear b. clear c. not too clear d. confusing

For those who used Quest:

10. The number of times I changed my answers and got a new Quest list was: a. 0 b. 1 c. 2 d. 3 e. 4 or more

11. My final Quest list was: a. just right for me b. good c. acceptable d. poor

12. The number of interesting occupations on my Quest list that I had not considered before is: a. 0 b. 1 - 3 c. 4 - 6 d. 7 - 10 e. 11 or more

13. The most important result of using EUREKA was: a. additional occupations to consider b. information about occupations c. new schools to consider d. information about educational programs e. information about schools.

14. My career plans have changed as a result of using EUREKA: a. very much b. quite a bit c. somewhat d. not at all

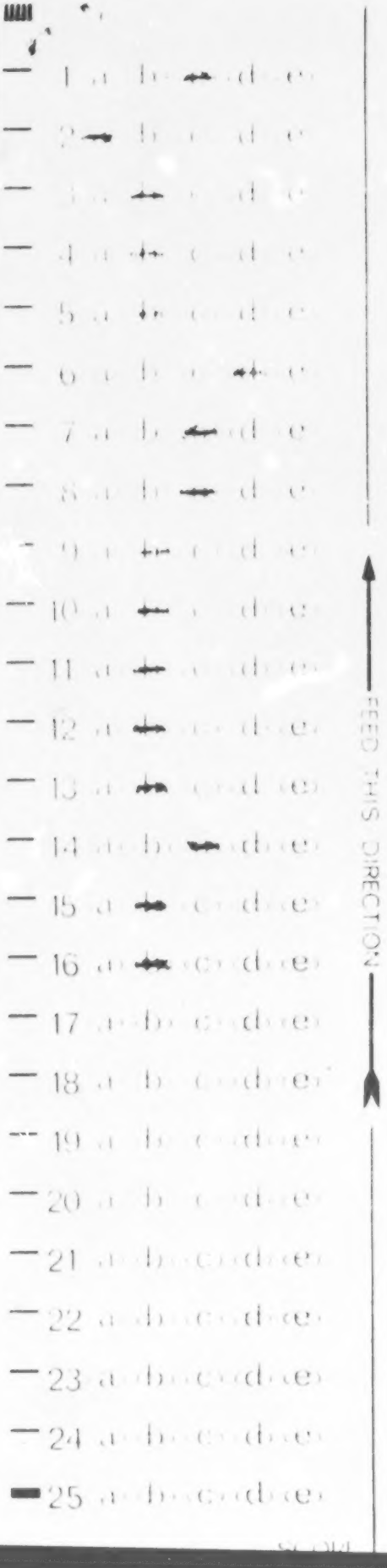
15. What part of EUREKA did you find most valuable?

16. What information did you want that you could not find?

Name of Institution_____ Date_____

Please write any other comments on the back.

SCAN-TRON FORM 899 93



FEED THIS DIRECTION

EUREKA Evaluation Form 2

EUREKA, the California Career Information System, which you are using, is in a continuous process of development. You can help us improve it by answering the following questions. Use a #2 pencil and mark your answers in the bubbles on the left. Choose only one answer for each question.

1. My age is: a. 12 - 17 b. 18 - 21 c. 22 - 34 d. 35 - 50 e. Over 50

2. The number of minutes I spent at the computer this time is: a. 15 b. 30 c. 45 d. 60 e. more

3. The most important result of using EUREKA was: a. additional occupations to consider b. information about occupations c. new schools to consider d. information about educational programs. e. information about schools

Grade the information in EUREKA with the following scale:
a. Excellent b. Good c. Fair d. Poor e. NOT USED

4. Job Descriptions
5. Job Outlook
6. Salaries
7. Preparation (PREP)
8. Bibliography (BIB)
9. Program Descriptions
10. PROG's List of Schools
11. Admission requirements of schools
12. Housing available at schools
13. School costs
14. Services available at schools
15. Employer (EMPLY)
16. Visit

Comments:

1. What problems did you have in using EUREKA?

2. How do you plan to use this information?

3. Other comments: (use the back if you like)

Name of Institution_____ _____Date_____

SCAN-TRON FORM 899

APPENDIX N

THURSDAY HOUR 3:51PM

FORM: EUREK1

QUESTION 1

A. A CAREER COURSE
B. TEACHER
C. FRIEND
D. COUNSELOR
E. OTHER

QUESTION 2

A. 12 - 17
B. 18 - 21
C. 22 - 34
D. 35 - 50
E. OVER 50

QUESTION 3

MY JOB STATUS IS:

AN WEB
1) 50.00% TL= 10 A. I HAVE NEVER HELD A FULL TIME JOB.
2) 38.41% TL= 5
B. I HAVE HELD A FULL TIME JOB BUT I DON'T HAVE ONE NOW.
3) 11.76% TL= 2 C. I AM CURRENTLY WORKING AT A FULL TIME JOB.

QUESTION 4

MY REASON FOR USING EUREKA IS TO:

ANSWER
1 [illegible] TL= 4 A. CHOOSE A CAREER
[illegible] TL= 0 B. LEARN MORE ABOUT A CAREER I HAVE ALREADY CHOSEN
[illegible] TL= 0 C. CHOOSE A SCHOOL
[illegible] TL= 1 D. LEARN MORE ABOUT A SCHOOL I HAVE ALREADY CHOSEN
[illegible] TL= 4 E. DECIDE WHAT TO STUDY IN SCHOOL

QUESTION 5

THE TOTAL NUMBER OF TIMES I HAVE USED EUREKA IS:

ANSWER		
1)	76.47% TL= 13	A. 1
2)	11.76% TL= 2	B. 2
3)	5.88% TL= 1	C. 3
4)	0.00% TL= 0	D. 4
5)	5.88% TL= 1	E. 5 OR MORE

QUESTION 6

THE NUMBER OF MINUTES I SPENT IN PREPARATION TO USE EUREKA:

ANSWER		
1)	11.76% TL= 2	A. NONE
2)	35.29% TL= 6	B. 5
3)	41.18% TL= 7	C. 15
4)	5.88% TL= 1	D. 30
5)	5.88% TL= 1	E. MORE THAN 30

QUESTION 7

THE NUMBER OF MINUTES I SPENT AT THE COMPUTER THIS TIME IS:

ANSWER		
1)	17.65% TL= 3	A. 15
2)	58.82% TL= 10	B. 30
3)	5.88% TL= 1	C. 45
4)	5.88% TL= 1	D. 60
5)	11.76% TL= 2	E. MORE THAN 60

QUESTION 8

THE INSTRUCTIONS IN THE GUIDES BY HERE:

ANSWER		
1)	52.94% TL= 9	A. VERY CLEAR
2)	41.18% TL= 7	B. CLEAR
3)	5.88% TL= 1	C. NOT TOO CLEAR
4)	0.00% TL= 0	D. CONFUSING

QUESTION 9

THE COMPUTER RESPONSES WERE:

ANSWER		
1) 64.71% TL= 11	A.	VERY CLEAR
2) 35.29% TL= 6	B.	CLEAR
3) 0.00% TL= 0	C.	NOT TOO CLEAR
4) 0.00% TL= 0	D.	CONFUSING

QUESTION 10

THE NUMBER OF TIMES I CHANGED MY ANSWERS AND GOT A NEW QUEST LIST WAS:

ANSWER		
1) 47.06% TL= 8	A.	0
2) 23.53% TL= 4	B.	1
3) 5.88% TL= 1	C.	2
4) 0.00% TL= 0	D.	3
5) 0.00% TL= 0	E.	4 OR MORE

QUESTION 11

MY FINAL QUEST LIST WAS:

ANSWER		
1) 17.65% TL= 3	A.	JUST RIGHT FOR ME
2) 29.41% TL= 5	B.	GOOD
3) 29.41% TL= 5	C.	ACCEPTABLE
4) 0.00% TL= 0	D.	POOR

QUESTION 12

THE NUMBER OF INTERESTING OCCUPATIONS ON MY QUEST LIST THAT I HAD NOT CONSIDERED BEFORE WAS:

ANSWER		
1) 11.76% TL= 2	A.	0
2) 29.41% TL= 5	B.	1 - 3
3) 17.65% TL= 3	C.	4 - 6
4) 0.00% TL= 0	D.	7 - 10
5) 17.65% TL= 3	E.	11 OR MORE

QUESTION 13

THE MOST IMPORTANT RESULT OF USING EUREKA WAS:

ANSWER			
1)	41.18% TL= 7	A.	ADDITIONAL OCCUPATIONS TO CONSIDER
2)	29.41% TL= 5	B.	INFORMATION ABOUT OCCUPATIONS
3)	0.00% TL= 0	C.	NEW SCHOOLS TO CONSIDER
4)	5.88% TL= 1	D.	INFORMATION ABOUT EDUCATIONAL PROGRAMS
5)	0.00% TL= 0	E.	INFORMATION ABOUT SCHOOLS

QUESTION 14

MY CAREER PLANS HAVE CHANGED AS A RESULT OF USING EUREKA:

ANSWER			
1)	0.00% TL= 0	A.	VERY MUCH
2)	5.88% TL= 1	B.	QUITE A BIT
3)	47.06% TL= 8	C.	SOMEWHAT
4)	23.53% TL= 4	D.	NOT AT ALL

GET-EUREK2
REP

DAY - 6/21/79 THURSDAY HOUR 3:52PM

FORM: EUREK2

QUESTION 1

MY AGE IS:

ANSWER			
1)	52.38% TL= 11	A.	12 - 17
2)	19.05% TL= 4	B.	18 - 21
3)	14.29% TL= 3	C.	22 - 34
4)	9.52% TL= 2	D.	35 - 50
5)	4.76% TL= 1	E.	OVER 50

QUESTION 2

THE NUMBER OF MINUTES I SPENT AT THE COMPUTER THIS TIME IS:

ANSWER			
1)	33.33% TL= 7	A.	15
2)	33.33% TL= 7	B.	30
3)	19.05% TL= 4	C.	45
4)	4.76% TL= 1	D.	60
5)	9.52% TL= 2	E.	MORE THAN 60

QUESTION 3

THE MOST IMPORTANT RESULT OF USING EUREKA WAS:

ANSWER			
1)	23.81% TL= 5	A.	ADDITIONAL OCCUPATIONS TO CONSIDER
2)	61.90% TL= 13	B.	INFORMATION ABOUT OCCUPATIONS
3)	0.00% TL= 0	C.	NEW SCHOOLS TO CONSIDER
4)	14.29% TL= 3	D.	INFORMATION ABOUT EDUCATIONAL PROGRAMS
5)	4.76% TL= 1	E.	INFORMATION ABOUT SCHOOLS

QUESTION 4

RATING OF JOB DESCRIPTIONS:

ANSWER			
1)	61.90% TL= 13	A.	EXCELLENT
2)	38.10% TL= 8	B.	GOOD
3)	0.00% TL= 0	C.	FAIR
4)	0.00% TL= 0	D.	POOR
5)	0.00% TL= 0	E.	NOT USED

QUESTION 5

RATING OF JOB OUTLOOK INFORMATION:

ANSWER		
1) 47.62% TL= 10	A.	EXCELLENT
2) 38.10% TL= 8	B.	GOOD
3) 9.52% TL= 2	C.	FAIR
4) 0.00% TL= 0	D.	POOR
5) 4.76% TL= 1	E.	NOT USED

QUESTION 6

RATING OF INFORMATION ON SALARIES:

ANSWER		
1) 38.10% TL= 8	A.	EXCELLENT
2) 47.62% TL= 10	B.	GOOD
3) 9.52% TL= 2	C.	FAIR
4) 4.76% TL= 1	D.	POOR
5) 0.00% TL= 0	E.	NOT USED

QUESTION 7

RATING OF PREPARATION (PREP) FILE:

ANSWER		
1) 52.38% TL= 11	A.	EXCELLENT
2) 33.33% TL= 7	B.	GOOD
3) 4.76% TL= 1	C.	FAIR
4) 0.00% TL= 0	D.	POOR
5) 4.76% TL= 1	E.	NOT USED

QUESTION 8

RATING OF BIBLIOGRAPHY (BIB) FILE:

ANSWER		
1) 9.52% TL= 2	A.	EXCELLENT
2) 42.86% TL= 9	B.	GOOD
3) 14.29% TL= 3	C.	FAIR
4) 0.00% TL= 0	D.	POOR
5) 28.57% TL= 6	E.	NOT USED

QUESTION 9

RATING OF PROGRAM DESCRIPTIONS:

ANSWER		
1) 42.86% TL= 9	A.	EXCELLENT
2) 42.86% TL= 9	B.	GOOD
3) 0.00% TL= 0	C.	FAIR
4) 0.00% TL= 0	D.	POOR
5) 14.29% TL= 3	E.	NOT USED

QUESTION 10

RATING OF PROG'S LIST OF SCHOOLS:

ANSWER		
1) 61.90% TL= 13	A.	EXCELLENT
2) 14.29% TL= 3	B.	GOOD
3) 4.76% TL= 1	C.	FAIR
4) 0.00% TL= 0	D.	POOR
5) 19.05% TL= 4	E.	NOT USED

QUESTION 11

RATING OF ADMISSION REQUIREMENTS OF SCHOOLS:

ANSWER		
1) 23.81% TL= 5	A.	EXCELLENT
2) 38.10% TL= 8	B.	GOOD
3) 4.76% TL= 1	C.	FAIR
4) 0.00% TL= 0	D.	POOR
5) 33.33% TL= 7	E.	NOT USED

QUESTION 12

RATING OF HOUSING AVAILABLE AT SCHOOLS:

ANSWER		
1) 14.29% TL= 3	A.	EXCELLENT
2) 23.81% TL= 5	B.	GOOD
3) 14.29% TL= 3	C.	FAIR
4) 0.00% TL= 0	D.	POOR
5) 42.86% TL= 9	E.	NOT USED

QUESTION 13

RATING OF INFORMATION ON SCHOOL COSTS:

ANSWER			
1)	19.05% TL= 4	A.	EXCELLENT
2)	38.10% TL= 8	B.	GOOD
3)	4.76% TL= 1	C.	FAIR
4)	0.00% TL= 0	D.	POOR
5)	38.10% TL= 8	E.	NOT USED

QUESTION 14

RATING OF INFORMATION ON SERVICES AVAILABLE AT SCHOOLS

ANSWER			
1)	14.29% TL= 3	A.	EXCELLENT
2)	23.81% TL= 5	B.	GOOD
3)	9.52% TL= 2	C.	FAIR
4)	0.00% TL= 0	D.	POOR
5)	47.62% TL= 10	E.	NOT USED

QUESTION 15

RATING OF EMPLOYER (EMPLY) FILE INFORMATION:

ANSWER			
1)	14.29% TL= 3	A.	EXCELLENT
2)	14.29% TL= 3	B.	GOOD
3)	9.52% TL= 2	C.	FAIR
4)	0.00% TL= 0	D.	POOR
5)	47.62% TL= 10	E.	NOT USED

QUESTION 16

RATING OF VISIT FILE INFORMATION:

ANSWER			
1)	23.81% TL= 5	A.	EXCELLENT
2)	19.05% TL= 4	B.	GOOD
3)	4.76% TL= 1	C.	FAIR
4)	0.00% TL= 0	D.	POOR
5)	47.62% TL= 10	E.	NOT USED

SUMMARY OF UNFORMATTED QUESTIONS

Form 1

15. What part of EUREKA did you find most valuable?

Tabulated Responses	Number of Responses
All	1
None	1
Occupational Information	2
Occupational Selection	1
School Information	1

16. What information did you want that you could not find?

Tabulated Responses	Number of Responses
None	3
Description of Developer	1
Description of Telecommunications	1

Form 2

1. What problems did you have in using EUREKA?

Tabulated Responses	Number of Responses
None	11
Mechanical Failure	3
Unable to interupt	2
Finding information	1

2. How do you plan to use this information?

Tabulated Responses	Number of Responses
Occupational Selection	4
School Selection	1
Use with Clients	2
Identifying Skills Needed	2
Not Sure	1
Class assignment	1

Other Comments:

It helped me a lot.

It gave me a broader view of what the occupation involves and what I have to do to prepare for it.

EUREKA is great if it is working. There were too many times when it was unusable because of either mechanical problems with instruments here or at the computer source.